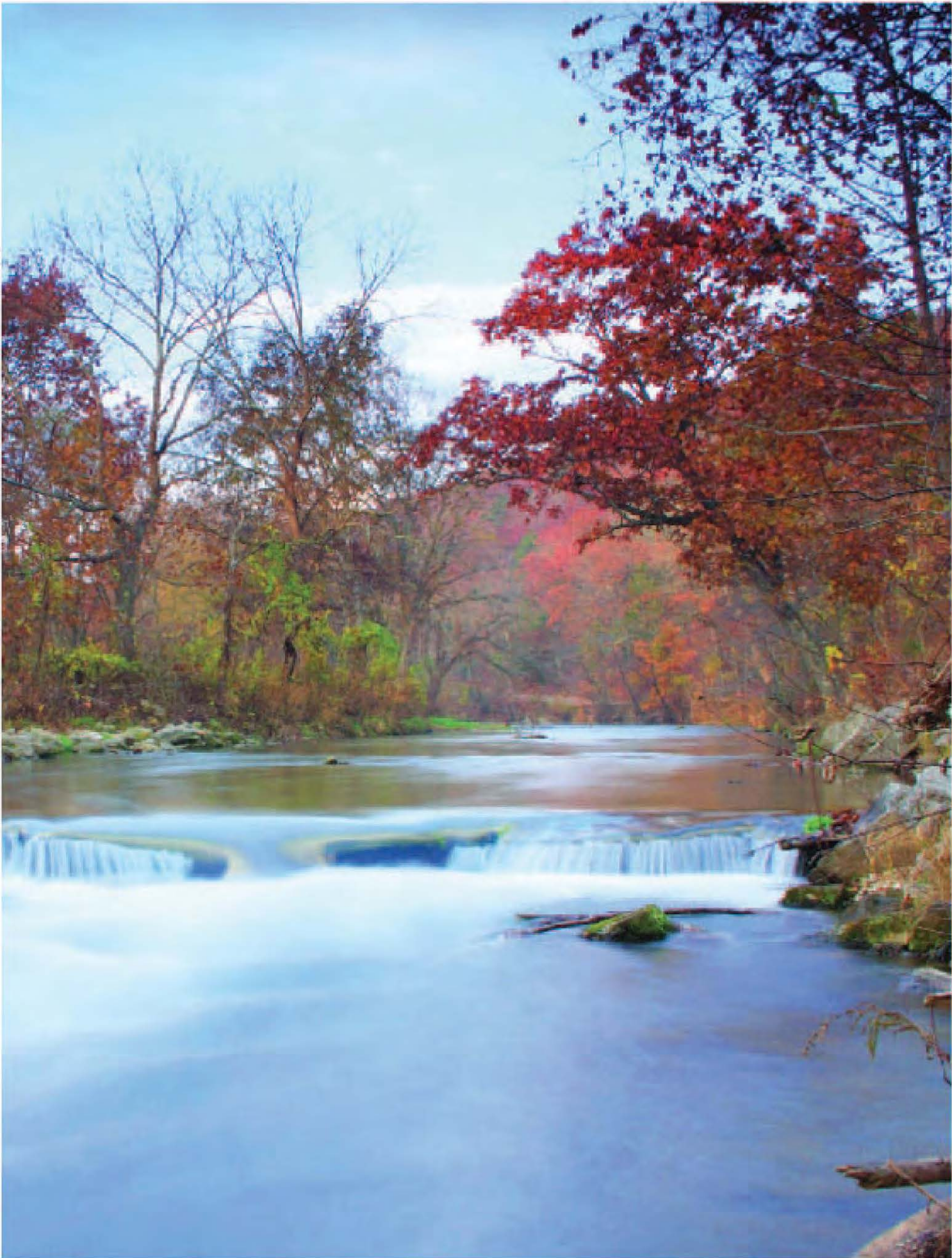


MISSOURI

Statewide Comprehensive Outdoor Recreation Plan

2013-2017





Missouri Statewide Comprehensive Outdoor Recreation Plan (SCORP)

2013-2017

Synergy/PRI/JPA
Synergy Group
Pragmatic Research, Inc.
James Pona Associates



GOVERNOR OF MISSOURI

JEFFERSON CITY
65102

JEREMIAH W. (JAY) NIXON
GOVERNOR

P.O. Box 720
(573) 751-3222

Dear Missouri Citizens:

It is with pleasure that I present the 2013-2017 Missouri Statewide Comprehensive Outdoor Recreation Plan. This plan provides a framework for the planning, development, management and protection of Missouri's outdoor recreation resources. In addition, this plan will ensure that Missouri remains eligible to receive federal Land and Water Conservation Funds for outdoor recreation projects.

We took a fresh approach to this plan, often referred to as the "SCORP", engaging Missouri residents and outdoor recreation professionals alike in the research. The goals were to assess current and future recreation needs, desires and preferences; identify trends and priorities that will impact the future of outdoor recreation in Missouri; and project future recreational demands. The plan also identifies areas of concern such as obesity and nature deficit disorder, both of which can be addressed with our plans for getting kids outdoors.

In completing this plan, three statewide surveys of residents and outdoor recreation professionals were conducted. The data from those primary research studies were compared to national studies and trends for a broad-based perspective.

And for the first time, an inventory of Missouri trails was conducted to quantify this rich resource that distinguishes Missouri as an outdoor destination. The trail inventory has already become the basis for a continued effort to further advance the sharing of trail information in Missouri.

The First Lady and I know first-hand the value of our treasured outdoor resources. From our award-winning state park system to our local parks, trails, playgrounds and greenspaces, we know that spending time outdoors leads to happier and healthier citizens. In fact, the studies show that 95% of Missourians agree with us.

We encourage all Missourians to utilize the recommendations in this plan. But most importantly, we urge you to get outside and enjoy Missouri's outdoors.

Sincerely,

A handwritten signature in blue ink, appearing to read "Jeremiah Nixon".

Jeremiah (Jay) Nixon
Governor

www.governor.mo.gov

In compliance with Federal regulations, the following are being included in and supported by Missouri Statewide Comprehensive Outdoor Recreation Plan (SCORP):

Title VI of the Civil Rights Act of 1964

The Age Discrimination Act of 1975

Section 504 of the Rehabilitation Act of 1973

The Americans with Disabilities Act (P.L. 101-336)

No person shall, because of race, color, national origin, age, or disability, be excluded from participation in, be denied the benefits of, or be otherwise subject to discrimination under any program or activity receiving federal financial assistance.

Equal opportunity is to be practiced in all phases of federally assisted projects including the planning, awarding of contracts, hiring of personnel and the use of access to facilities and programs.

Complaints regarding discrimination may be filed with:

Office of Equal Opportunity

National Park Service

U. S. Department of the Interior

Washington D.C. 20240

The Missouri Department of Natural Resources has the authority to represent and act for the State in dealing with the Secretary of the Interior for purposes of the Land and Water Conservation Fund Act of 1965, as amended.

**Missouri Statewide Comprehensive
Outdoor Recreation Plan
(SCORP)
2013-2017**

Prepared For
State Inter-Agency Council for Outdoor Recreation

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THE STATE OF MISSOURI
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The preparation of this report was financed in part through a planning grant from the National Park Service, U.S. Department of Interior, under the provisions of the Land and Water Conservation Fund Act of 1965(Public Law 88-578).

ACKNOWLEDGEMENTS

The Missouri Department of Natural Resources' Division of State Parks wishes to thank the many agency personnel and individuals who assisted in providing and compiling the information necessary to revise the 2013-2017 Missouri SCORP. We would especially like to extend our appreciation to the following for their assistance during the development of this plan document:

William (Bill) Bryan – Director, Missouri State Parks & SLO
Jane Lale – Director, Planning and Development Program
Christopher D. Buckland – Section Chief, Grant Management Section & ASLO
Mary Donze – Planner
Don Stier – Planner

We apologize for oversight of any individual or agency that may also have provided assistance in this endeavor.

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Executive Summary

The Missouri Statewide Comprehensive Outdoor Recreation Plan (SCORP) 2013-2017 is a research and planning document with a dual goal – to guide the development and funding of outdoor recreation within Missouri over the next five years, and to ensure Missouri’s eligibility for federal Land and Water Conservation Funds.

For this SCORP, Missouri residents and outdoor recreation professionals alike were engaged in research studies to assess current and future recreational needs and preferences, identify trends and priorities, and project future recreational demand in the state of Missouri.

The data from three statewide surveys of residents and outdoor recreation professionals, conducted specifically for this SCORP, was compared with national studies and trends to achieve a broad-based perspective. A first-time, detailed inventory of Missouri trails also was made as part of this SCORP process.

By engaging both residents and professionals in the process, a great deal was learned about the challenges and issues involved in making outdoor recreation opportunities available to all Missouri residents.

The studies conducted for the 2013-2017 Missouri SCORP include:

Missouri Residents and Recreation Professionals Opinions on Parks & Recreation Study 2009 – this 2009 survey, conducted by the Missouri Parks and Recreation Association (MPRA) with Missouri SCORP funds, surveyed 874 Missouri residents and 349 recreation professionals to determine the needs, concerns and values of the public as they related to parks, recreation and open space. While Missourians love their parks and outdoor recreation facilities, the study found that many do not connect what they value about parks, recreation and open space with the services that recreation agencies provide, or with the funding needed to support them. The findings indicated a need for better public communications, and led to a MPRA public education campaign titled “Did You Know?” unveiled in 2012. The goal of the campaign is to educate parks and recreation enthusiasts about the measurable benefits of outdoor recreation and transition park users into knowledgeable advocates.

Missouri Residents Survey – this 2011 statewide survey of 768 Missouri residents confirmed a high demand for trails, walkable streets and sidewalks, and more organized youth and teen activities. The survey revealed the different outdoor recreation needs of urban and rural Missouri communities, and shed light on the outdoor recreation issues, concerns and priorities of Missouri residents as a whole.

Missouri Professionals Survey – this 2011 statewide survey of 150 Missouri outdoor recreation professionals highlighted critical funding issues and an ongoing need to “do more with less.” Outdoor recreation professionals track a growing demand for facilities that encourage a variety of activities such as trails and trail connections, walkable streets and sidewalks, and multi-use sports fields. They see a need for more facilities close to home, and for expanded teen and older

adult activities. Professionals' concerns over issues such as a lack of transportation may lead to future collaborations with other agencies.

Missouri Trail Inventory – Missouri is home to the Katy Trail State Park, Ozark Trail, and thousands of miles of trails, but no central database has existed to guide professionals and trail users. This 2011 inventory, completed by 160 recreation professionals, counted and gathered data on more than 3,000 miles of trails, located in nearly all of Missouri's 114 counties plus the city of St. Louis. The resulting trail database can be sorted and filtered to provide a wide range of trail information and statistics. Although the inventory is not complete, a Trail Alliance comprised of all entities managing trails in the state is being formed. The Alliance will continue to develop a more comprehensive trail database for management and public information purposes.

Our state faces a number of challenges in providing outdoor recreation opportunities to all residents. These include an obesity epidemic, a slow-growth but aging population, inadequate public transportation opportunities, a slow economy, and a lack of interest in outdoor recreation by many teens and older adults.

In addition to providing rich data, these SCORP research studies have led us to develop a set of goals, priorities and action steps. These action steps address overall demand for outdoor recreation in Missouri as well as specific issues such as funding, youth engagement, access, public education and agency collaboration.

Introduction

Every five years, the Missouri Department of Natural Resources, Division of State Parks produces a Statewide Comprehensive Outdoor Recreation Plan (SCORP) as a framework for planning, development, management and protection of the state's outdoor recreation resources.

The SCORP also meets the requirements of the federal Land and Water Conservation (LWCF) grant program, ensuring that Missouri remains eligible to receive federal LWCF funds for future outdoor recreation projects. (Missouri State Parks staffs the State Inter-Agency Council for Outdoor Recreation (SIACOR), which administers the LWCF program for the state of Missouri.)

Land and Water Conservation Fund

Congress created the Land and Water Conservation Fund in 1965 to safeguard natural areas, water resources and our cultural heritage, and to provide recreation opportunities to all Americans. LWCF uses revenues from offshore oil and gas receipts -- more than \$14.4 billion since the program began -- to acquire new federal recreation lands and to provide matching grants to States for outdoor recreation purposes.

The LWCF program has two components: the "Federal side" which funds the acquisition of new land and water areas by federal agencies, and the "State side" which provides matching grants to state and local governments.

State Assistance Program

The LWCF state assistance program provides grants to states and local communities to protect parks and recreation resources. From wilderness areas to trails and neighborhood playgrounds, LWCF funding has benefited nearly every county in America, supporting more than 41,000 projects nationwide.

The LWCF program for states ensures that families have easy access to parks and open space, hiking and riding trails, and neighborhood recreation facilities. Over the life of the program, more than \$3 billion in LWCF grants have been provided to the states, which in turn have used the funding to leverage more than \$7 billion in non-federal matching funds.¹

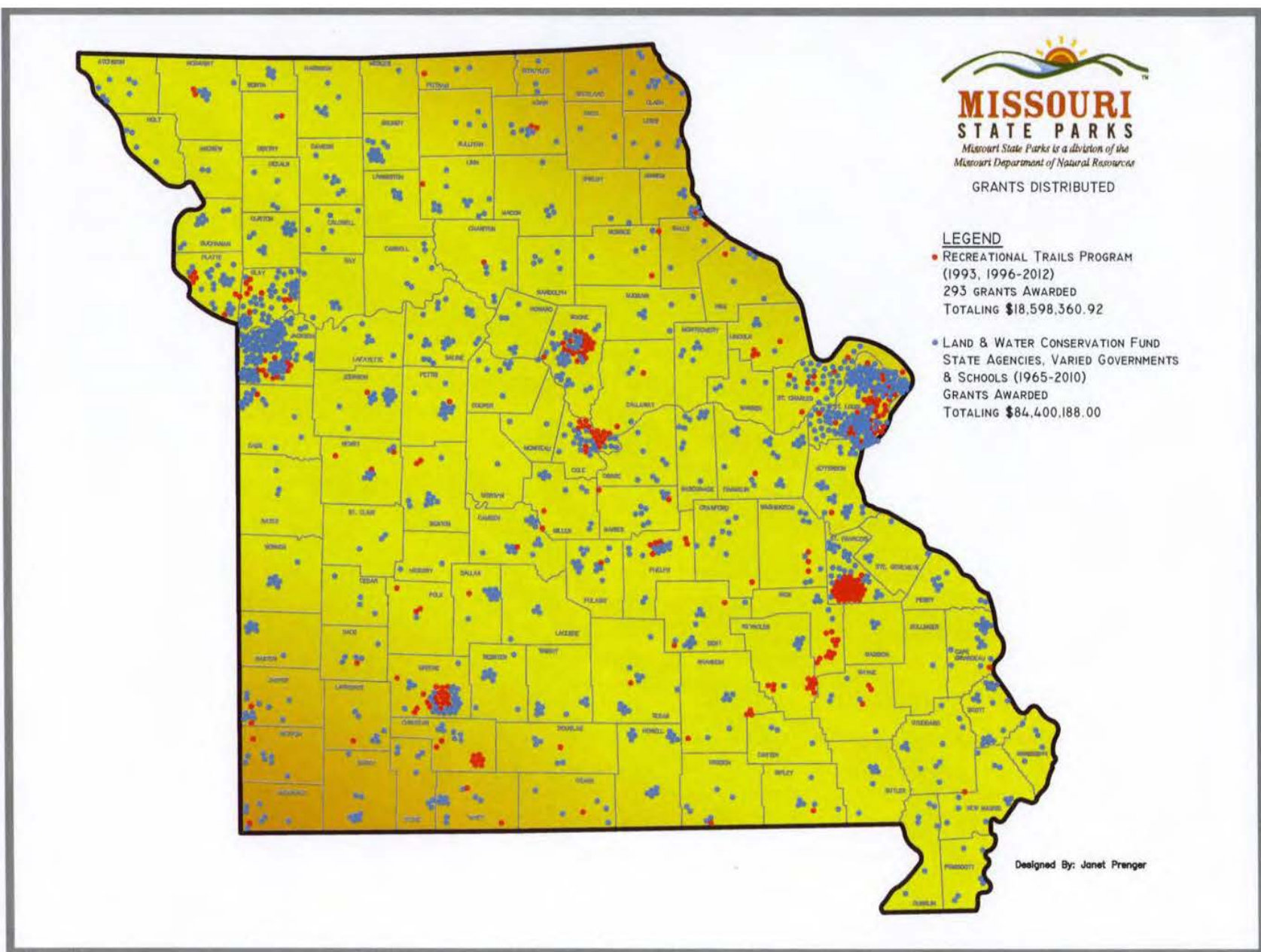
To be eligible for federal LWCF grants, every state must prepare and regularly update a Statewide Comprehensive Outdoor Recreation Plan (SCORP). Most SCORPs address the demand for, and supply of, outdoor recreation resources (local, state and federal) within a state; identify needs and new opportunities for recreation improvements; and set forth an implementation program to meet outdoor recreation goals.

In Missouri, 1,270 LWCF grants totaling over \$84 million in federal funds have been awarded since 1965, creating and protecting recreation opportunities in all counties of the state
(

¹ Land and Water Conservation Fund Coalition. <http://www.lwcfcoalition.org/about-lwcf.html>.

Figure 1).

Figure 1 - Geographic Distribution of LWCF Grants



LWCF grants are available to Missouri cities, counties and school districts for outdoor recreation projects, and require a 55 percent match. All funded project sites are taken under perpetuity by the National Park Service and must be used only for outdoor recreational purposes.

Missouri State Parks also administers Recreational Trails Program (RTP) grants for the construction and renovation of trails and trailheads, and for interpretive/educational programs. The Recreational Trails Program is a federal grant program thru the Federal Highway Administration, created to promote recreational trails.

Goals of Missouri SCORP 2013-2017

Ultimately, the purpose of SCORP is to increase outdoor recreation participation by residents and visitors to the state of Missouri. To accomplish this, it is important to first identify and understand the needs and desires of residents and visitors.

The goals for this SCORP are to:

- Conduct a need-based inventory of outdoor recreation facilities and activities in Missouri;
- Describe regional and statewide trends in outdoor recreation;
- Identify conflicts, threats, gaps, barriers and other critical issues effecting outdoor recreation in Missouri;
- Identify strengths and opportunities to improve outdoor recreation in Missouri;
- Propose strategies and action items for improving outdoor recreation in the state;
- Conduct a statewide inventory of trails;
- Identify issues that need further study.

To accomplish these goals, DNR/Missouri State Parks contracted the research and planning team Synergy/PRI/JPA to conduct the following primary research studies during the summer of 2011:

Survey of Residents – Residents across the state were surveyed to assess their outdoor recreation activities, interests, preferences, desires and concerns as part of a need-based inventory of current outdoor recreation resources.

Survey of Recreation Professionals and Providers – Recreation professionals and providers (local park and recreation directors, state and federal agencies, nonprofits, community leaders, etc.) were surveyed to assess public demand for outdoor recreation facilities and activities, and to identify trends and critical issues impacting the future of outdoor recreation in Missouri.

Missouri Trail Inventory – more than 400 park and recreation organizations and communities were invited to complete an online inventory survey to document trails across the state. Responses came from more than 100 of the state's 114 counties, with information on nearly 1,000 trails. The trail inventory created a solid database that can be expanded and refined as a resource for recreation planners and, ultimately, the public.

Literature Search – dozens of studies were reviewed and Missouri was compared with national trends affecting outdoor recreation, such as socio-demographic shifts, increased urbanization, loss of greenspace, population group changes, health and obesity, and youth and minority participation.

Missouri Residents and Recreation Professionals Opinions on Parks & Recreation Study 2009

– SCORP includes findings from the Missouri Park and Recreation Association (MPRA) study of Missouri residents and recreation professionals, conducted in 2009 with SCORP funds for the Missouri Park and Recreation Association, Missouri State Parks, the Conservation Federation of Missouri, and the Open Space Council. The MPRA study assessed the values and perceptions of residents, recreation professionals and public officials regarding parks, recreation and open space in Missouri. The purpose was to help parks and recreation professionals better meet public needs and concerns, and create outcomes to ensure that parks and recreation services are understood, appreciated, valued, supported and protected through community and political support.

The Missouri SCORP 2013-2017 presents the findings of these primary and secondary research efforts along with an overview of trends and critical issues, a wetlands report, and goals and recommendations for the next five years. The Appendices (available under separate cover) provide additional in-depth information, research study reports, and additional charts, graphs and maps.

Background

A Missouri Snapshot

Long before Lewis and Clark set out from Missouri to explore the West, people hunted, fished and played on our lands.

As many as 14,000 years ago, the ancient Paleo-Indians hunted Missouri big game – the mastodons and giant sloth that roamed the area. Many millennia later, the Hopewell and Osage tribes inhabited Missouri and made the most of the region's natural resources. Other Native American tribes including the Delaware, Kickapoo, Shawnee and Piankashaw hunted our lands, lived in our forests and plains and canoed our rivers and streams.²

Today, Missouri remains a land rich in natural resources and abundant in outdoor recreation opportunities, from canoeing the Current River to hiking the Katy Trail State Park, from playing Little League baseball to gathering with family and friends at a local park. Missourians take advantage of their outdoor playground, participating in outdoor recreation at a significantly higher rate than the national average.³

Still, Missouri faces challenges in providing outdoor recreation opportunities to *all* of its residents. Funding to maintain, replace and develop new facilities to meet public demand is a major concern among both recreation professionals and residents. Attention also must be focused on other major issues affecting outdoor recreation in Missouri, such as obesity, poverty, lower participation by minorities, and a decline in interest among youth.

Who We Are

Missouri is home to nearly six million people and growing steadily at 6 percent per decade, yet lagging behind the national growth projection of 10 percent per decade.⁴

Unlike many Sunbelt states that grow through in-migration, Missouri's population increase is primarily due to natural change – births minus deaths. Birth rates in Missouri will increase only a few thousand a year over the next decade while death rates will rise due to aging baby-boomers.

Migration is the primary agent of change -- either growth or decline – in only a few geographic areas such as St. Charles County, which will gain 145,000 net in-migrants by 2030, and St. Louis City, which has experienced fairly rapid decline through out-migration.⁴

As a result of this ongoing slow growth, Missouri's population rank has steadily dropped from the 5th most populous state in the early 1900s to the 18th most populous in 2010.

² Missouri Native American History. www.missouri-vacations.com. River Valley Regional Association.

³ Outdoor Recreation Participation Report. The Outdoor Foundation. 2010 and 2011.

⁴ Missouri Economic Research and Information Center, Missouri Department of Economic Development.

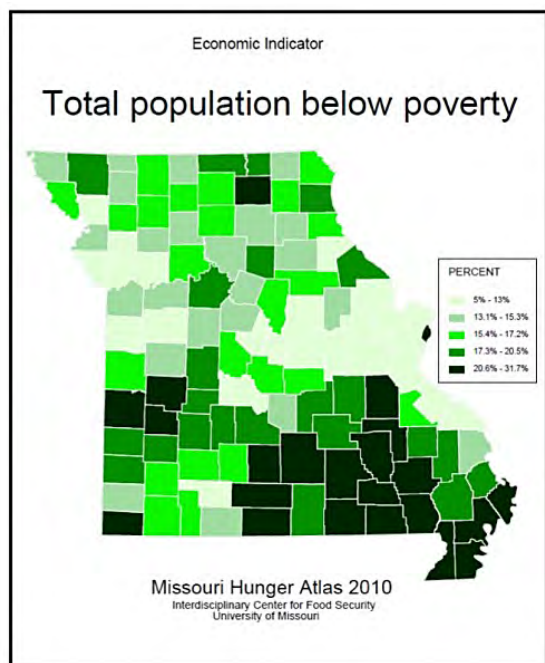


Figure 2 - Missouri Population Below Poverty

overall that are obese. More than 13 percent of children and adolescents in Missouri are considered obese⁶ (Figure 3).

On a county level, the rates of obesity range even higher. In four counties of Missouri, more than 36 percent of the population is obese, a statistic that correlates closely with lack of exercise in those regions.⁷

Diversity

Following another national trend, Missouri has become more racially and ethnically diverse over the course of the last decade. Eighty-three percent of Missourians are white, nearly 12 percent are black and 3.5 percent are Hispanic. According to the 2010 U.S. Census, Missouri's total minority population increased from 16 percent in 2000 to 19 percent in 2010 (Table 1).

Poverty

Missouri is trending toward the top, however, in poverty. Overall, 15.5 percent of Missourians saw their income slip below the poverty level in 2010, doubling the poverty level of 2000 and putting the state in the top third of the nation in the number of poor residents (Figure 2).

Obesity

Most of the poorest counties in Missouri are in the less populated rural south and southeast regions of the state⁵ where obesity is high.

Missouri, in fact, ranks high as the 11th most obese state in the country. An alarming two-thirds of Missourians are overweight, including 30 percent

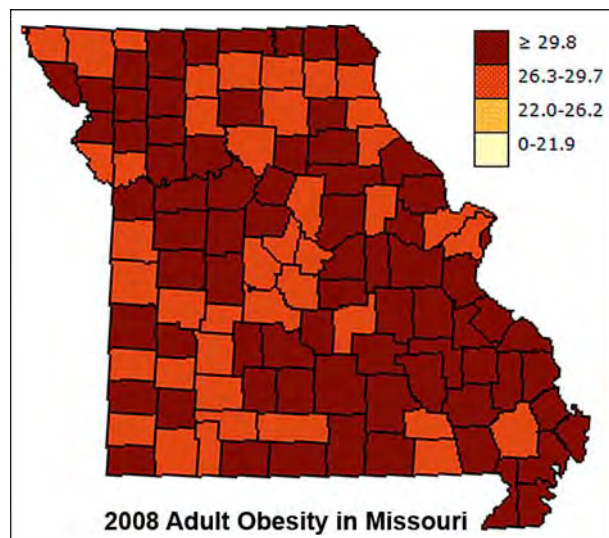


Figure 3 - Adult Obesity in Missouri

⁵ Centers for Disease Control and Prevention: National Diabetes Surveillance System.

⁶ "F as in Fat: How Obesity Threatens America's Future 2011." Trust for America's Health (TFAH) and the Robert Wood Johnson Foundation (RWJF).

⁷ Centers for Disease Control [Behavioral Risk Factor Surveillance System](#) (BRFSS). Missouri County Level Study. 2007.

Minority populations in Missouri are growing faster than the general population, increasing over the past decade three times as fast as the state population as a whole (18 percent minority growth vs. 6 percent overall).

The Hispanic population in Missouri is growing faster than any other population group at 79 percent since 2000⁸

Missouri Population by Race as a Percentage of Total Population 2010 By Race, Hispanic Origin and Total Minority									
	White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some other race	Two or more races	Hispanic or Latino (of any race)	Total Minority
Missouri	82.8%	11.6%	0.5%	1.6%	0.1%	1.3%	2.1%	3.5%	19.0%

Source: Census 2010 - P.L. 94-171
Prepared by Missouri Office of Administration-Division of Budget and Planning 2/28/2011

Table 1 - Missouri Population by Race

The challenge for Missouri recreation planners is that minority groups tend to participate in outdoor recreation at a lower rate than whites, in part because of a lack of awareness. According to one study conducted for the National Park Service, although America has become more diverse over the last decade, black and Hispanic Americans remain underrepresented in visits to national parks. The barrier most often expressed by those ethnic groups is that they just don't know much about National Parks or the recreation opportunities they provide.⁹

The problem of low minority participation in outdoor recreation involves issues of access, awareness, programming and staffing. The National Park Service study acknowledges that simply increasing awareness among minority non-visitors will not necessarily increase their visits. Parks must provide experiences that are relevant, desirable and accessible if they hope to attract minority visitors.

Parks also must increase diversity among their own employees if they are to attract minority visitors. The National Park Service introduces minority youth to careers in outdoor recreation through training programs, job shadowing and internships.

Aging

Missouri's population also is aging (Table 2). The number of children under 20 will remain steady at about 26 percent over the next decade, but those 65 and older will increase from less than 14 percent of the population to nearly 17 percent. By 2030, more

⁸ Missouri Office of Administration. Missouri's First Detailed 2010 Census Counts.

⁹ Lovitt, Rob. National Park Service Comprehensive Survey of the American Public 2008–2009: Racial and Ethnic Diversity of National Park System Visitors and Non-Visitors.

than one in five Missourians – 1.4 million people – will be over the age of 65, an astounding 87 percent increase over 2000.¹⁰

Population Projections by Age Missouri Counties: 2000 through 2030								
County	Age	Year						
		2000	2005	2010	2015	2020	2025	2030
Statewide Total	0-4	369,898	384,226	392,155	406,994	417,559	418,296	416,469
Statewide Total	5-9	398,900	379,331	394,173	401,219	415,759	426,060	426,274
Statewide Total	10-14	412,080	402,452	383,326	396,834	403,097	417,094	426,816
Statewide Total	15-19	413,316	427,130	418,039	398,044	410,097	415,361	428,151
Statewide Total	20-24	369,640	431,154	444,986	435,628	415,493	427,070	431,328
Statewide Total	25-29	362,497	349,633	414,313	429,251	419,111	398,004	409,885
Statewide Total	30-34	376,714	375,661	361,453	429,960	445,734	434,506	412,334
Statewide Total	35-39	443,570	380,562	379,059	363,554	433,173	448,675	436,454
Statewide Total	40-44	444,529	446,388	383,141	380,615	364,019	433,587	448,449
Statewide Total	45-49	395,729	441,562	443,893	379,550	376,378	359,163	427,830
Statewide Total	50-54	346,941	389,453	435,247	437,218	373,093	369,838	352,588
Statewide Total	55-59	279,100	337,049	379,357	424,444	426,858	364,232	361,522
Statewide Total	60-64	228,357	266,644	323,641	365,100	409,988	414,048	354,396
Statewide Total	65-69	205,386	210,894	248,687	303,316	344,060	388,945	395,493
Statewide Total	70-74	187,870	181,731	189,043	224,822	276,438	316,040	360,272
Statewide Total	75-79	157,213	156,247	153,623	161,701	194,745	242,350	279,984
Statewide Total	80-84	106,375	118,226	120,597	120,971	129,893	159,760	202,317
Statewide Total	85+	98,572	102,950	114,611	125,169	134,355	147,839	176,200
Statewide Total	Total	5,596,687	5,781,293	5,979,344	6,184,390	6,389,850	6,580,868	6,746,762

Components of Change - Total Over the Previous Five Years								
Statewide Total	Births	-	377,342	384,203	399,122	409,636	410,608	409,282
Statewide Total	Deaths	-	267,613	268,239	270,110	273,531	281,642	297,170
Statewide Total	Net Migration	-	74,877	82,087	76,034	69,355	62,052	53,782

Table 2 - Missouri Population by Age

This dramatic growth in Missouri's elderly population, due to increased longevity and aging of the baby-boom generation, will have a greater impact on the state than any other age group population change. Recreation professionals currently rank the age group 55+ second (after teens) in unmet needs,¹¹ a trend that will increase as baby-boomers age unless additional efforts are made to serve the senior age group.

For most of the last century, increased fertility has been the primary cause of Missouri's population increase. Future fertility rates are expected to remain at year 2000 levels, with births increasing from an average 76,000 a year to 82,000 by 2030 as an increasing number of women reach childbearing years. The number of deaths in Missouri has averaged around 50,000 a year since the early 1960s but is expected to increase to 59,000 a year by 2030 due to aging baby-boomers.¹⁰

In 2000, life expectancy at birth in Missouri was 73 years for men, 79 for women, and is expected to rise even higher thanks to improvements in health care.

¹⁰ Missouri Office of Administration. Population Projections - Trends

¹¹ Missouri Division of State Parks SCORP Professionals Survey, 2011.

Recent studies and trends, however, suggest that women in some regions of Missouri¹² and some young adult populations may experience declines in life expectancy due to obesity in youth, smoking and other health issues. Outdoor recreation can play an important role in improving the health outlook for these groups.

The distribution of Missouri's population age groups has changed dramatically since 1900, when it was wide at the base with younger groups and narrower toward the top as mortality claimed older age groups (Figure 4).

By 1950, the base was wide with post-war births (the baby-boom generation), but narrow bands above the base showed the smaller group born during the Great Depression.

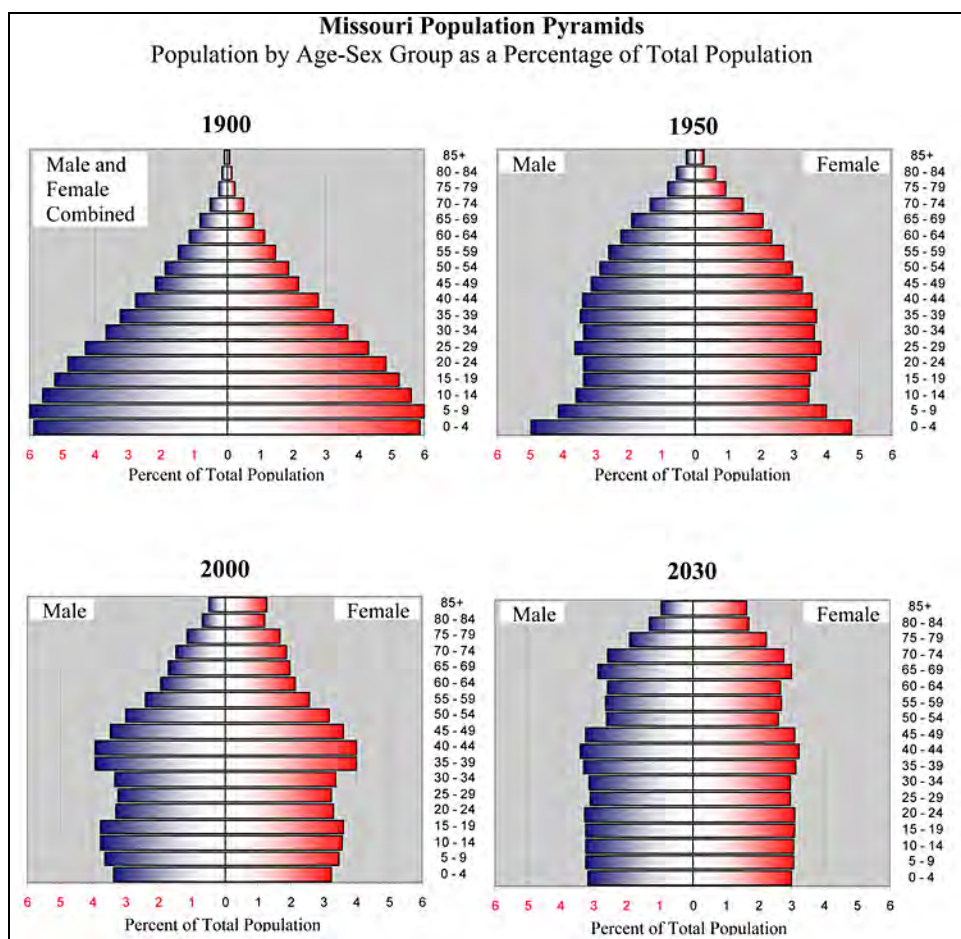


Figure 4 - Missouri Population Pyramids

By the year 2000, the middle-age baby boom generation remained a prominent factor, followed by the "baby bust" and the "boom echo," (the Baby Boomers children) in the 5- to 19-year-old age groupings. But by 2030, Missouri's population will have a rectangular cast. Baby-boomers will swell the upper sections of the pyramid to unprecedented widths

¹² Murray, Christopher. Falling behind: life expectancy in US counties, Population Health Metrics

while long-sustained low levels of fertility will produce consistent narrow bands in the lower half of the age distribution. The following are highlights of projected changes in Missouri's age distribution for select groups between 2000 and 2030:¹³

Preschool Age

By 2030, this age group will have increased by 13 percent, or 47,000 additional preschoolers. However, due to larger increases in Missouri's older age groups, preschoolers will represent only six percent of the population by 2030.

Elementary School Age

This age group is projected to increase five percent by 2030 to a total of 768,000, representing 11 percent of the total population.

High School Age

This group's population will increase by 12,000, or four percent, to a total of 342,000 in 2030, representing five percent of the total population.

College Age

This group is expected to increase an additional 13 percent to a total of just over 600,000. However, this group's percentage of the total population is expected to drop to nine percent by 2030.

Young Adults

Nearly one of every three Missourians, 1.6 million persons, was in the 25-44 age group in 2000. Young adults will have a modest increase of five percent between 2000 and 2030 to a final population of 1.7 million persons or 25 percent of the total population.

Older Adults

The 45-64 age group increased 43 percent between 1950 and 2000, for a final population of 1.3 million. By 2030, this group is estimated to grow by an additional 20 percent, to a population of 1.5 million. The 45-64 age group will represent 22 percent of the population in 2030, the same ratio as in 1950 and 2000.

The Elderly

The elderly have increased more consistently and proportionately than any other age group. Persons 65+ represented only 10 percent of the population in 1950. By 2000, their ranks had risen to 13 percent. By 2030, adults 65+ will represent more than one-fifth of Missourians (21%).

The 85+ age group has grown even more rapidly and will continue to grow. In 1950, there were 21,000 seniors over 85 in Missouri, just one-half of one percent. By 2000, there were 99,000 over 85, two percent of the population. By 2030, the number of elderly people 85+ in Missouri is expected to increase by another 78,000 to 176,000, or 2.5 percent of the overall population.

¹³ Missouri Office of Administration. The Missouri Population Projections 2000-2030 - Population Trends

Where We Live

Missouri is a mostly rural land of rolling hills, upland prairies, rivers, deep forests and rich agricultural areas. Yet, increasingly more Missourians -- nearly three out of four -- live in the three percent of the land that is classified as urban.¹⁴

Over the years, Missouri's population density has steadily shifted from rural agricultural regions to urban areas and to rural areas that are rich in recreational amenities, such as those near Lake of the Ozarks and Branson (Figure 5).

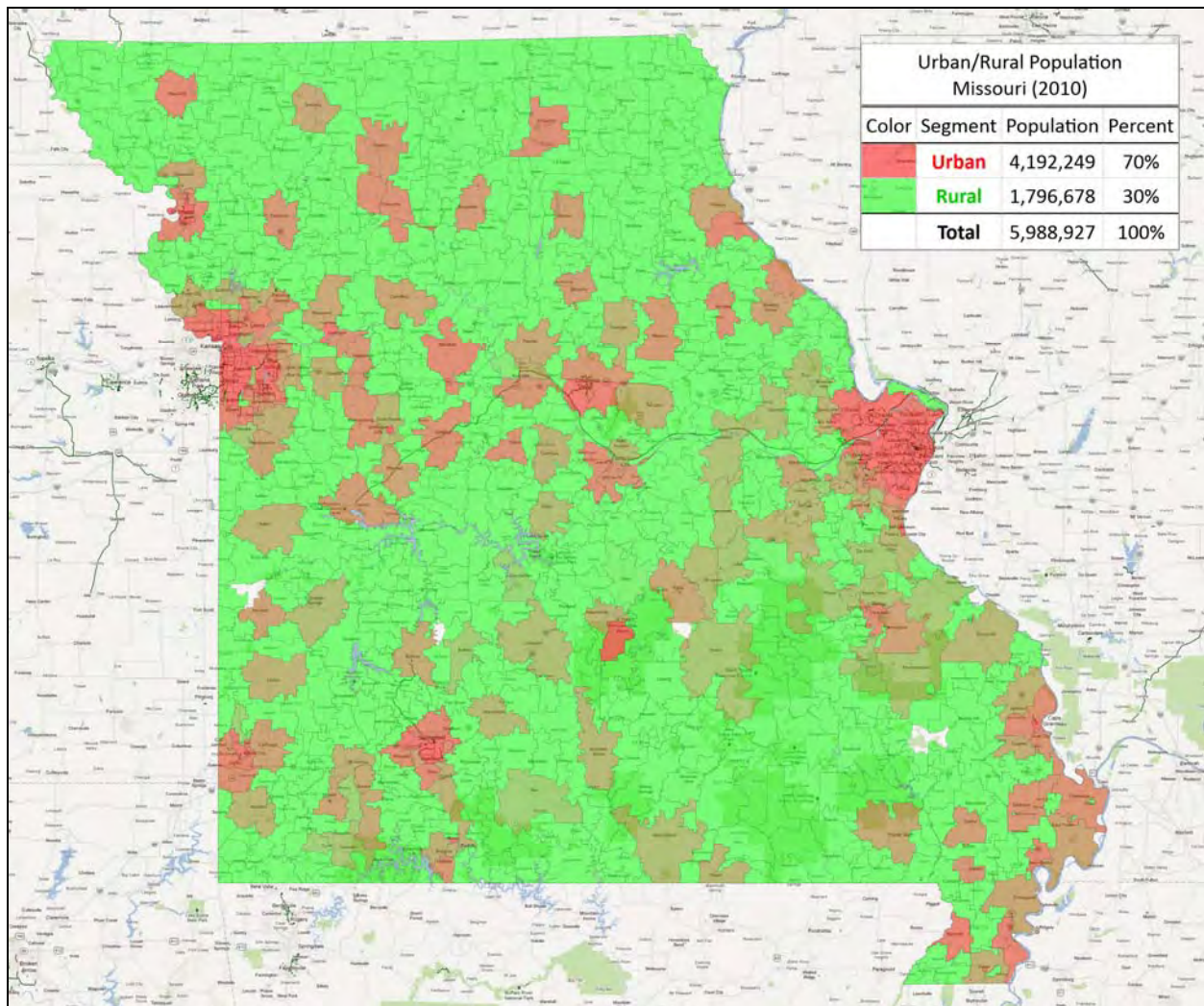


Figure 5 - Missouri Rural and Metropolitan Population

These patterns were evident in the 2010 census (Figure 6) and are expected to continue, with an even greater shift to the urban fringes over the coming decades. Metropolitan areas in Missouri are home to the state's 10 fastest-growing counties, while the population in Missouri's agricultural counties is on the decline.

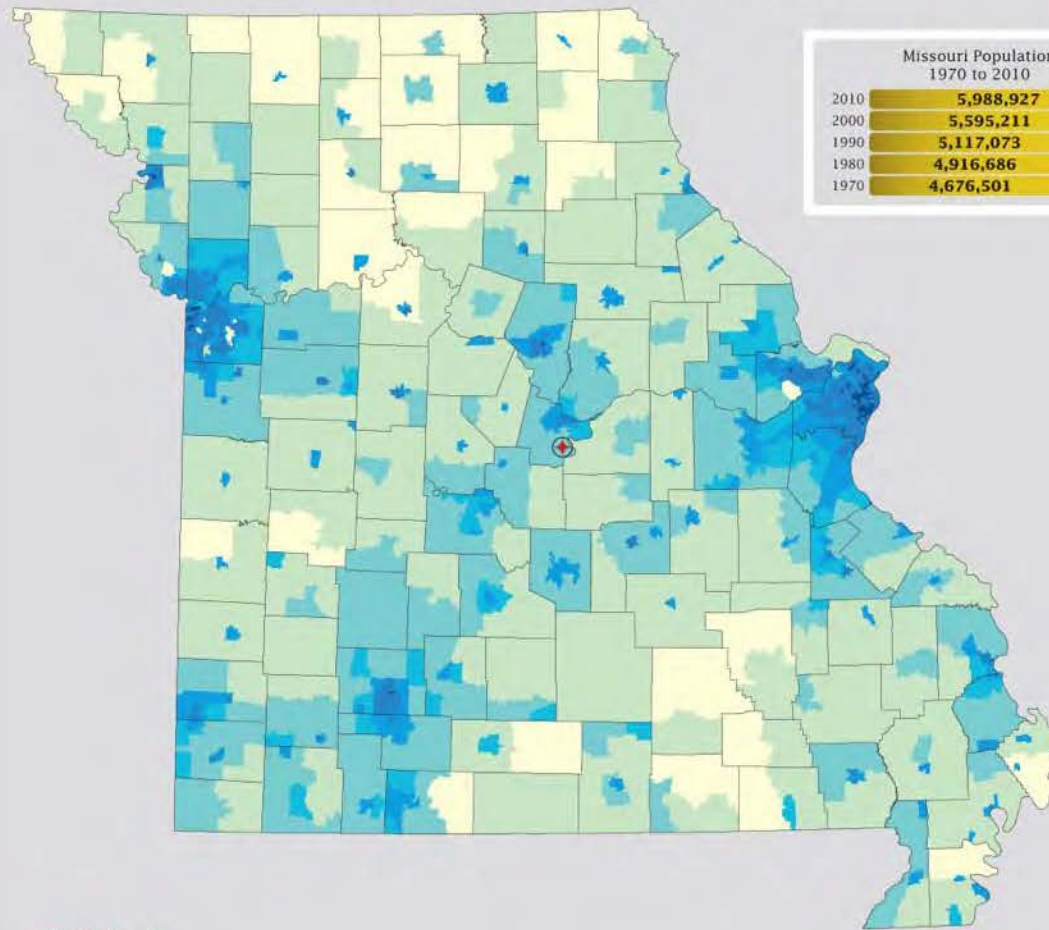
¹⁴ U.S. Department of Agriculture Economic Research Service – State Fact Sheets: Missouri.

Although St. Louis County is Missouri's most populous county, a distinction it will retain over the coming decades, the county lost 1.7 percent of its residents since 2000⁴. That trend is expected to continue as people move farther from urban centers, increasing the demand for outdoor recreation in the urban fringe communities.

Figure 6 - 2010 Missouri Profile

2010 Census: Missouri Profile

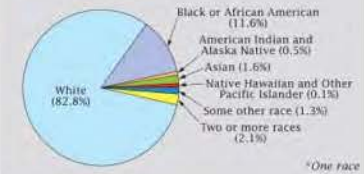
Population Density by Census Tract



Missouri Population
1970 to 2010

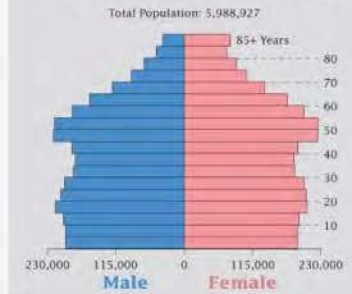
2010	5,988,927
2000	5,595,211
1990	5,117,073
1980	4,916,686
1970	4,676,501

State Race* Breakdown



Hispanic or Latino (of any race)
makes up **3.5%** of the state population.

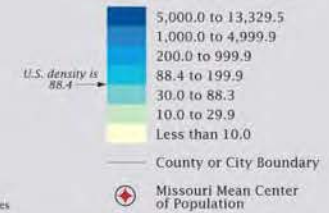
Population by Sex and Age



Housing Tenure



People per Square Mile by Census Tract



United States[™]
Census
Bureau

U.S. Department of Commerce Economics and Statistics Administration U.S. CENSUS BUREAU

The ratio of urban vs. rural residents in Missouri has remained fairly steady, with the urban population growing about one percent since 1980, when it was about 72 percent. In 2010, nearly 4.4 million Missourians, or about 73 percent, lived in urban areas while 1.6 million, about 27 percent, lived in rural areas (Table 3).¹³

Missouri Population – Rural and Urban			
Year	Rural *	Urban *	Total
1980	1,383,367	3,533,399	4,916,766
1990	1,390,705	3,726,368	5,117,073
2000	1,525,249	4,069,962	5,595,211
2010	1,613,417	4,375,510	5,988,927

Table 3 - Missouri Population - Rural and Urban

* The terms “rural” and “urban” refer to data for non-metro and metro areas, a county-level classification defined by the Office of Management and Budget. According to official U.S. Census Bureau definitions, rural areas comprise open country and settlements with fewer than 2,500 residents. Urban areas comprise larger places and densely settled areas around them and do not necessarily follow municipal boundaries.¹⁴ See “10 Things to Know About Urban vs. Rural” in Appendix A.

Natural change and in-migration work together to accelerate the population shift in some regions of Missouri.

For example, St. Charles County, northwest of St. Louis, is growing through both strong net in-migration (much of it from St. Louis County) and natural growth. St. Charles County is expected to grow 76 percent by 2030, with a net gain of 145,000 in-migrants plus an additional 70,000 residents through natural growth. At half a million people, St. Charles County is projected to overtake St. Louis City for the number three population ranking in the state.¹³

Large growth also is expected in the suburban counties surrounding Kansas City, St. Louis County and Springfield. Jackson County, which includes part of Kansas City, will hold its position as Missouri’s second most populous county. Around the Kansas City area, Cass, Clay, and Platte counties combined may grow by as much as 62 percent. Both Christian County south of Springfield and Lincoln County northwest of St. Louis are expected to more than double in size by 2030.

Clay and Jefferson Counties are expected to switch in the rankings between the number six and seven spots. And Cass County is expected to overtake Franklin County as the 10th most populous county in 2030.

Missouri counties with increasing population will impact recreation planning in the state, creating a need for additional outdoor recreation facilities and activities in those areas.

In New Madrid County, the situation is just the opposite, with a projected loss of 7,000 people through out-migration by 2030 and an additional 500 through natural decline. Except for St. Louis County, the top ten counties of greatest population decline are rural. New Madrid County could lose more than a third of its population by 2030. Both Iron and Gentry counties could lose 30 percent. (See Missouri Population by County charts in Appendix A)

Where We Play

Missouri is a state rich in outdoor recreation resources, with hundreds of conservation areas, 87 state parks and historic sites, two major rivers, the vast Mark Twain National Forest, the Ozark National Scenic Riverways, the 225-mile Katy Trail and six national historic trails, and thousands of hunting and fishing spots.



Big Muddy National Wildlife Refuge (U.S. Fish & Wildlife)

An abundance of local parks, playgrounds, trails, ball fields, nature areas and other recreational facilities are found in communities across the state. The Missouri landscape includes tallgrass prairies, deep forests, barren glades, wide rivers, swamps, wetlands and crystal clear streams.

Missouri's ancient limestone geology created 1,100 natural springs, including several of the largest and most beautiful in North America, and 6,000 caves ripe

for exploring. At least 20 are "show" caves, open to the public with guided tours.

All of these features make for an unusually varied, beautiful and interesting natural history that has shaped Missouri's cultural history and provide a backdrop for outdoor recreation in the state.

Missouri truly is a land of rivers and streams. Two of our country's greatest waterways – the Mississippi River and the Missouri River – have shaped both economic development and outdoor recreation in Missouri.

Missouri also is home to several major water trails, where visitors experience beautiful and serene wilderness areas from the unique vantage point of the river or lake. A growing trend in outdoor recreation, water trails offer opportunities for boating, canoeing, kayaking and wildlife viewing, and they benefit conservation and tourism in river states and communities.

The Mississippi River Trail is a 3,000-mile+ system of water trails, on-road bikeways and pedestrian pathways that stretches from the river's headwaters in Itasca, Minnesota to the Gulf of Mexico. Other designated Missouri water trails include the Mississippi River Water Trail, a 300-mile water trail on the Upper Mississippi River from Saverton, Missouri to Cairo, Illinois; and



Canoeing a water trail (U.S. Fish & Wildlife)

the 500-mile+ Missouri River Water Trail, which crosses through the very heart of the state.

The 630-foot Gateway Arch in St. Louis pays tribute to Missouri's role as the “Gateway to the West.” St. Louis’ prime location along the Mississippi River made it an ideal base for western expansion in the early 1800s. Missouri was the launching pad for the Lewis and Clark Expedition, which began near St. Louis and traveled 800 miles along the Mississippi and Missouri Rivers in its 1,600-mile Northwest Passage to the Pacific Ocean.

Missouri also is home to at least 15 major lakes, all man-made, and hundreds of smaller bodies of water. Many of Missouri’s lakes are used as water reservoirs and/or recreation. The Lake of the Ozarks, the largest lake in Missouri, covers 55,000 acres and has become a major resort area attracting millions of visitors each year.¹⁵

The region north of the Missouri River is largely agriculture/crop land while the region south of the river encompasses the foothills and plateau of the Ozark Mountains. The



Downy Woodpecker (U.S. Fish & Wildlife)

rough, heavily forested eastern section of the Ozarks extends into the less hilly farming plateau in the west and the irregular, twisting Lake of the Ozarks. Southwest Missouri is a long, narrow area of Great Plains flat land. The southeast Bootheel region south of Cape Girardeau is Mississippi River floodplain, once swampy forestland before it was drained for agriculture.

Two of America's clearest spring-fed rivers – the Current River and the Jacks Fork – make up the Ozark National Scenic Riverways, the first national park to protect a wild river system. These crystal clear, spring-fed rivers create a destination of splendor and natural beauty, perfect for rafting and canoeing trips.

In the spring and fall, the Ozarks are alive with color. Riverbank campsites, caves, sink holes, bluffs, springs and other natural features invite exploration, and the crystal clear, cool water is ideal for fishing.

The Ozark Trail winds through the Missouri Ozarks and provides access to some of Missouri’s most scenic and rugged landscape. More than 350 miles of trail have been developed in a multi-use trail system that eventually will run from the St. Louis area to the Arkansas border, where it can connect with the Ozark Highland Trail, in Arkansas.

¹⁵ Ozarkland.com. <http://www.ozarkland.com/chalkridge/j/LocalInformation.htm>

The entire trail is open to hiking and backpacking, with some sections also available for mountain biking and equestrian use. Much of the trail is located on state and federal land, with some areas on private property.

Development of the Ozark Trail began more than 25 years ago through the efforts of many volunteers, the U.S. Forest Service, Missouri State Parks, Missouri Department of Conservation, National Park Service, the U.S. Army Corps of Engineers and other land management agencies and partners. Today, the non-profit, volunteer Ozark Trail Association continues to develop, maintain, preserve, promote and protect the Ozark Trail.

Outdoor Recreation Providers

A variety of agencies in Missouri – national, state and local – form an integrated effort to bring people to these natural resources through parks, recreational areas, conservation areas, open space and cultural opportunities.

Federal providers are charged with preserving natural and historic sites of national and international significance. State agencies preserve landscapes and cultural features of statewide significance and provide compatible recreation. Local and community parks departments and other agencies focus on providing recreation and open spaces close to home.

Local Recreation Providers

Although Missouri offers many thousands of acres of public lands, most outdoor recreation happens close to home. Nearly three out of four Missourians live within four miles of an outdoor recreation facility, and more than half drive less than 10 miles to participate in outdoor activities during the week.¹⁶

Missouri is home to 114 counties and one independent city (St. Louis), 637 cities, 110 towns and 212 villages.¹⁷ These municipalities play a critical role in providing outdoor recreation opportunities. Currently, the most prevalent and popular facilities in Missouri include playgrounds, trails, parks, picnic areas, sports fields and outdoor swimming pools,¹¹ which often are provided by local communities.

Public school districts also play a role in outdoor recreation in Missouri. A 2010 study by Washington University¹⁸ found that the majority of public school districts in Missouri (71%) have joint community use policies to make their playgrounds, sports fields, walking trails and other outdoor recreation facilities available to the community on weekends and in the summer. Larger districts in both urban and rural areas are the most likely to have joint use policies in place.

¹⁶ Missouri Division of State Parks SCORP Residents Survey, 2011.

¹⁷ U.S. Census Bureau 2010 Missouri Quick Facts.

¹⁸ Eyler, Amy, Ph.D. Missouri Community Use Policy Analysis, Washington University in St. Louis, 2011.

On the individual school level, more than 90 percent of the state's middle and high schools allow community-sponsored use of their physical activity facilities for youth programs outside of normal school hours.¹⁹

Joint use policies encourage physical activity, enhance community connectedness and make the most of existing facilities. The Missouri Consultants for Education and the Missouri School Boards' Association provides policy templates.

Still, less than half of Missouri youth have access to a playground, park, community center, sidewalk or walking path within a half-mile of their home.¹⁹ According to the Trust for Public Land, various studies have shown that people are unwilling to walk more than a quarter-mile to a half-mile to access a park, depending on the built environment, their age, health, safety and time constraints.²⁰

State of Missouri Recreation Providers

State-managed lands in Missouri provide a wide variety of outdoor recreation opportunities, ranging from hiking, bicycling, camping, bird watching and picnicking to boating, hunting, fishing, swimming, caving and river rafting. State-level providers include the Missouri Department of Natural Resources, Division of State Parks and the Missouri Department of Conservation.

Missouri State Parks preserves and interprets outstanding natural landscapes and cultural landmarks, and provides recreational opportunities that are compatible with goals to protect those areas. Missouri State Parks, ranked five times among the top four state park systems in the nation, includes 87 state parks and historic sites plus the Roger Pryor Pioneer Backcountry, a 60,000-acre forested natural area in a remote corner of the Missouri Ozarks.

More than 200,000 acres of Missouri State Park land is available to the public, with 1,500 structures, 3,700 campsites, 194 cabins, nearly 2,000 picnic sites, and 840 miles of trail for hikers, backpackers, bicycle riders, off-road vehicle users, horseback riders and outdoor enthusiasts of all kinds.

The Katy Trail State Park, for example, attracts an estimated 400,000 visitors a year and has a total economic impact of \$18,491,000 a year on the local economy. About two-thirds of the visitors are nonlocal, spending more and staying longer than the typical local visitor. About one in four visitors spends the night at a local hotel, motel, B&B inn or campground. Overnight visitor parties (average 3.9 visitors per party) spend an average \$700 per trip and another \$504 in annual trail-related expenses.²¹

¹⁹ State Indicator Report on Physical Activity, 2010 Missouri Action Guide. Department of Health and Human Services, Centers for Disease Control & Prevention

²⁰ Donahue, Ryan. City Parks Blog. The Trust for Public Land. "Pedestrians and Park Planning: How Far Will People Walk?" May 13, 2011

²¹ Missouri Division of State Parks Katy Trail Economic Impact Study. 2011.

Visits to Missouri State Parks increased from 14.9 million visitors in 2008 to 15.9 million in 2009, 16.4 million in 2010 and 17.8 million in 2011, ending a 10-year decline in parks attendance and moving the state toward the goal of attracting 20 million visitors a year.²²

To achieve that goal, the Missouri DNR Division of State Parks created Parks 20/20:A Strategic Plan²³ in 2010 to guide park development over the next decade. The plan's three primary initiatives are to:

- Increase visitation among all Missourians, especially young and out-of-state visitors, to 20 million by the year 2020;
- Increase revenue \$20 million by 2020 to sustain operations, allow for growth and improve existing facilities;
- Cultivate public and political support in ways that complement the visitor and revenue initiatives, and that perpetuate the principles of a state that values its state park system.

To recognize and protect significant natural elements of the state, Missouri State Parks has designated nearly 20,000 acres of land as Missouri Natural Areas and 23,000 acres as Missouri Wilderness and Wild Areas.

Missouri's Natural Areas are managed and protected for their scientific, educational and historic values. The state's designated Wild Areas are available for hiking and backpacking, and are valuable outdoor classrooms for environmental education and reservoirs of scientific information. (See state park amenities and lists of Missouri Natural Areas and Wild Areas in Appendix A)

The **Missouri Department of Conservation** administers more than 994,406 acres in Missouri, of which 790,977 acres are in public ownership and an additional 203,429 are managed through lease and other agreements with a variety of entities and organizations. There are nearly 1,000 conservation areas, thousands of miles of rivers and streams, and more than 600 lakes.

Department of Conservation sites offer a variety of outdoor recreation opportunities, including fishing, hunting, trapping, wildlife viewing, nature study, camping, nature and interpretive centers, fish hatcheries, natural areas, shooting ranges and education centers, and outdoor skills programs.

Lands administered by the Department of Conservation provide outdoor recreation in addition to a variety of habitats, watershed protection, forest and wood products, and scenic beauty. Missouri has nearly 500,000 hunters, 1.1 million anglers, and 2.2 million wildlife watchers, and the economic impacts from fish and wildlife-related recreation and the wood products industry in Missouri is more than \$11 billion annually (U.S. Department of the Interior, Fish and Wildlife Service, 2006).

Missouri residents are encouraged to participate and partner for recreation and conservation efforts as interpretive and shooting range volunteers, hunter education instructors, members of

²² Missouri State Parks Post a 6 Percent Increase Attendance During 2009. Kansas City Infozine, Marcy 29, 2010.

²³ Parks 20/20:A Strategic Plan. Missouri Department of Natural Resources, Division of State Parks. 2010.

more than 4,321 Missouri Stream Teams, volunteer water quality monitors, and private land management cooperators. The Department of Conservation provides technical assistance to private landowners for beneficial habitat management practices.

The Department of Conservation offers *Missouri Conservationist*, a free monthly magazine for Missouri residents. Focused on conservation and fish, forest, and wildlife-related recreation, the magazine is received by about 500,000 households.

The Department also publishes an additional free bimonthly magazine called *Xplor*. Targeted to Missouri children age 7 through 12, *Xplor* has a circulation of about 100,000 and a companion website. The Department of Conservation also sponsors Discover Nature Schools instructional units. Ninety-five Missouri school districts have adopted elementary school habitats units and 115 districts have adopted middle-school aquatic units.

An online Conservation Atlas sponsored by the Department of Conservation includes descriptions of lands and recreational opportunities. Many Department areas offer designated trails, which provide recreational and educational opportunities in addition to access to conservation lands (see Missouri Department of Conservation Map in Appendix A).

Federal Recreation Providers in Missouri

In Missouri, federal agencies providing outdoor recreation include the **National Park Service** which manages six National Park properties and six National Historic Trails; the **U.S. Fish and Wildlife Service** which operates 60,831 acres of wildlife refuges and the Neosho Fish Hatchery; the **U.S. Department of Agriculture Forest Service**, which manages the 1.5 million Mark Twain Forest, its 14 rivers and streams, 16 lakes and numerous natural springs; and the **U.S. Army Corps of Engineers** which operates and maintains recreational areas at 15 Missouri lakes and rivers.

National Park Service (NPS), a bureau of the U.S. Department of the Interior, manages six national park units in Missouri. Missouri's national parks attract more than four million visitors a year and generate an annual tourism economic benefit of more than \$140 million.

National Park land in Missouri includes:

- **George Washington Carver National Monument** – the birthplace and childhood home of the famous black scientist, educator, and humanitarian.
- **Harry S Truman National Historic Site** - the "Summer White House" of the 33rd President of the United States until his death in 1972.
- **Jefferson National Expansion Memorial** – home of the Gateway Arch on the Mississippi riverfront in St. Louis, the park memorializes Thomas Jefferson.
- **Ozark National Scenic Riverways** - the nation's first scenic riverway, encompassing 134 miles of river.
- **Ulysses S. Grant National Historic Site** – Grant's estate in St. Louis County before the Civil War began.
- **Wilson's Creek National Battlefield** – site of the first major Civil War engagement west of the Mississippi River.

The National Park Service also manages the **National Trails System**, a network of scenic, historic and recreation trails. Missouri is fortunate to have six national historic trails run through the state, including the California, Lewis & Clark, Oregon, Pony Express, Santa Fe and the Trail of Tears National Historic Trails.

U.S. Fish and Wildlife Service (USFWS) is a federal agency that works to conserve, protect and enhance fish, wildlife, plants and their habitats for the benefit of the American people.



Wildlife classroom (U.S. Fish & Wildlife)

Since the vast majority of USFWS habitat is on lands not owned by the federal government, USFWS works closely with state and local governments, tribes, corporations and families.

The National Wildlife Refuge System Improvement Act passed by Congress in

1997 established hunting, fishing, wildlife observation, wildlife photography, environmental education, and interpretation as "priority public uses" when compatible with the mission and purpose of the individual refuge.

In Missouri, the U.S. Fish and Wildlife Service oversees 60,831 acres of wildlife refuges. In 2010, 430,731 people visited national wildlife refuges in Missouri to hunt, fish, participate in interpretive programs and view wildlife.²⁴

National Wildlife Refuges in Missouri include:

- Great River National Wildlife Refuge
- Clarence Cannon National Wildlife Refuge
- Big Muddy National Wildlife Refuge
- Mingo National Wildlife Refuge
- Pilot Knob National Wildlife Refuge
- Ozark Cavefish National Wildlife Refuge
- Middle Mississippi River National Wildlife Refuge
- Squaw Creek National Wildlife Refuge
- Swan Lake National Wildlife Refuge

²⁴ U.S. Fish & Wildlife Service. Missouri State Fact Book. 2011.

All of the refuges except Pilot Knob and Ozark Cavefish are open to the public for a variety of activities, such as hunting, fishing, wildlife viewing and photography, and environmental education. The Mingo National Wildlife Refuge in Southeast Missouri receives 100,000 visitors a year and offers additional opportunities for canoeing, kayaking, horseback riding, biking, hiking, jogging, berry and mushroom gathering, and picnicking.

The Midwest Region of the U.S. Fish and Wildlife Service also operates the **Neosho Fish Hatchery** in Neosho, Missouri. The oldest operating federal fish hatchery, Neosho raises endangered pallid sturgeon, rainbow trout and freshwater drum, and supports conservation of the endangered blind Ozark cavefish. The public is invited to tour the hatchery, which includes an Ozark blind cavefish display. More than 45,000 people visit each year.

U.S. Forest Service, an agency of the U.S. Department of Agriculture, manages public lands in national forests and grasslands including the 1.5 million acre **Mark Twain National Forest** in southern and central Missouri.

The Mark Twain National Forest encompasses 29 counties, more than any other national forest, and is the largest public land in the state, encompassing more than five percent of Missouri's land base. Known for its rivers, streams, lakes and trails, Mark Twain National Forest is home to 14 floatable streams and 16 lakes. Recreation opportunities at Mark Twain National Forest include hiking, biking, horseback riding, camping, fishing, hunting, nature viewing, ATV/UTV riding, picnicking, rock and mineral collecting, wildlife and bird watching, scenic driving and water activities.

Among the forest's unique attractions is Greer Spring, the largest spring on National Forest land, which releases an average 214 million gallons of water a day. Visitors also enjoy the Glade Top Trail National Scenic Byway, which offers 30-mile views to the Boston Mountains in Arkansas.

U.S. Army Corps of Engineers manages and protects project lands, soil resources, vegetation, and fish and wildlife for the public good. Most Corps-managed lands are available for outdoor recreational pursuits including hunting, fishing, hiking, bird watching, sightseeing and outdoor photography. Hunting, camping and equestrian uses are permitted with some restrictions.

Missouri lies within three U.S. Army Corps of Engineers regions – The Northwestern Division, the Mississippi Valley Division and the Southwestern Division. (See Corps of Engineers maps in Appendix A)

The Corps of Engineers Kansas City District operates and maintains **Blue Springs Lake, Harry S. Truman Lake, Long Branch Lake, Longview Lake, Pomme de Terre Lake, Smithville Lake and Stockton Lake** and their associated recreational areas.

The Corps of Engineers St. Louis District operates and maintains **Wappapello Lake, Clarence Cannon Dam** and **Mark Twain Lake** and their associated recreational areas. These lakes provide flood protection, recreation, a potable water supply and hydroelectricity, and average more than 15 million visitors a year. The Corps of Engineers Little Rock District operates **Bull Shoals, Clearwater** and **Table Rock Lake** in Missouri.

The Corps enlists the help of several other agencies to accomplish its goals.

- The Missouri Department of Conservation (MDC), for example, licenses Corps land for fish and wildlife management purposes.
- The Missouri Department of Natural Resources manages several state parks on Corps of Engineers lakes.
- The new Audubon Center at Riverlands, near the confluence of the Mississippi and Missouri Rivers just north of St. Louis, is a partnership between the Corps St. Louis District and the National Audubon Society. The center is surrounded by 3,700 acres of prairie marsh and forestland at the Corps of Engineers' Riverlands Migratory Bird Sanctuary.

Conservation Organizations, Nonprofit and Private Providers

Dozens of local and national conservation organizations acquire and protect green space, and offer outdoor experiences in Missouri. These include the Nature Conservancy, the Trust for Public Land, the Conservation Fund, Audubon Missouri, Kansas City Zoo, Great Rivers Greenway, Missouri Botanical Garden, Bridging the Gap, St. Louis Zoo, Trailnet and many others.

Nonprofit organizations such as the YMCA, six Boy Scout Councils, three Girl Scout Councils and various churches own and operate outdoor recreation centers and camps in Missouri. Others like the Boys and Girls Clubs of America, Big Brothers-Big Sisters of America and Little League of America organize activities at public parks, schools and other facilities.

Missouri has 386 private and public golf courses. St. Louis, Kansas City, Columbia, Springfield, Branson, Joplin, Saint Charles, Blue Springs, Eureka and Lees Summit are the cities with the most golf courses.²⁵

The Missouri Canoe and Floaters Association, a non-profit organization of paddle sports outfitters, includes dozens of private members who provide canoe rentals, campgrounds, cabins and organized canoeing, rafting and kayaking trips on 29 rivers throughout Missouri.²⁶

Private cabins, motels, hotels, bed and breakfast inns, lodges and private campgrounds cater to canoe and rafting, camping, hunting, fishing, birding and horseback riding enthusiasts throughout Missouri.

²⁵ GolfLink, www.golflink.com.

²⁶ Missouri Canoe and Floaters Association, www.missouricanoe.org.

How We Play

Overall, Missourians are more active in the outdoors than the average American. More than three-fourths of the Missouri residents surveyed had participated in outdoor recreation at least once in 2010¹⁶ as compared to less than 50 percent nationwide.³



Birdwatching from a nature trail
(U.S. Fish & Wildlife)

On the weekends, two out of three Missourians enjoy at least three hours of outdoor recreation and about half of them get outdoors that often during the week. Only one in four Americans plays outdoors two or more times a week.

Those who enjoy outdoor recreation daily in Missouri are most likely to be walking/hiking, gardening, watching birds and wildlife, and walking their dogs.

On a weekly basis, Missourians like to swim, bicycle, play baseball, run and play basketball. Family gatherings, nature sightseeing drives, picnicking, fishing, visiting playgrounds and hiking are the most popular outdoor activities among Missourians on a monthly basis.

Missourians would like to see more walking/bicycle trails, outdoor pools and parks in their communities, and more activities for children and adolescents.¹⁶

Trails, playgrounds, multi-use fields, picnic areas and gardens are the most popular outdoor recreation facilities in Missouri and are expected to become even more popular over the next five years.¹¹

How We Pay for Play

Both recreation professionals and residents in Missouri see funding as the number one critical issue affecting outdoor recreation in the state. Most Missouri residents agree that outdoor recreation is important and benefits them, and that funding is a high priority. They cite funding, upkeep and the need for more locations as the most critical issues affecting outdoor recreation in the state.¹⁶

More than half of Missourians surveyed in 2009²⁷ agreed that parks, open spaces, greenways and conservation areas should be considered budget priorities even in difficult economic times. And in an era when children have been described as “nature deficient,”

²⁷ Missouri Residents’ and Recreation Professionals’ Opinions of Parks and Recreation in Missouri, 2009. Missouri Park & Recreation Association. 2009.

92 percent of Missouri parents said government spending on recreational services for children is important.

In the same survey, Missouri residents ranked the importance of conservation and environmental protection efforts just behind education, public safety and public works. More than 90 percent of residents said these were important government expenses, including 30 percent who rated them as very important. Missourians ranked parks, open space and recreational facilities alongside economic development as important government efforts.

State Park Funding

Three-fourths of the funding for the Missouri State Park system comes from the state's Parks and Soils Sales Tax, a one-tenth-of-one-percent sales tax approved by voters in 1984. Half of the funds are earmarked for the state park system and half for soil erosion projects. Additional funding for Missouri State Parks is generated within the state park system and through federal funds.

The Parks and Soils Sales Tax has been reapproved by voters three times (1988, 1996 and 2006) by more than two-thirds of Missouri voters, demonstrating the public's strong support of the state park system.

Missouri Department of Conservation Funding

The Missouri Conservation Sales Tax approved by voters in 1976 is a one-eighth-of-one-percent general sales tax dedicated to statewide conservation efforts. This revenue makes up 58 percent of the Missouri Department of Conservation's annual operating budget. Permit fees from fishing, hunting and trapping account for about 20 percent of the Department's annual revenue and about 14 percent comes from federal reimbursement sources including the U.S. Fish and Wildlife Service's Wildlife and Sport Fish Restoration programs.

Federal Grant Programs

The Missouri Division of State Parks administers two federal programs that provide outdoor recreation and trail grants. Land and Water Conservation Fund (LWCF) grants are available to cities, counties and school districts to fund outdoor recreation facilities and to acquire land for use by the general public.

Nearly \$84 million in Land & Water Conservation Fund (LWCF) grants have been awarded in Missouri since 1965. Approximately 80 percent of the Missouri State Park sites have received LWCF funding and are protected under the LWCF Program. In addition, since 1949 more than 6,337 acres of federal surplus land have been transferred to the state of Missouri and local entities for use as local parks and other recreation through the National Park Service's Federal Lands to Parks Program.

Recreational Trails Program (RTP) grants are available for the construction and renovation of trails and trailheads, and for interpretive/educational programs. Local, state

and federal governments, school districts, non-profit and for-profit organizations, and Indian tribes are eligible project sponsors for the Recreational Trails Program.

Projects eligible for RTP grants include construction of new recreational trails; maintenance or renovation an existing trail; development or renovation of trailheads or trail amenities; acquisition of land for recreational trails; purchase or lease of trail maintenance equipment; and trail safety or environmental education programs.

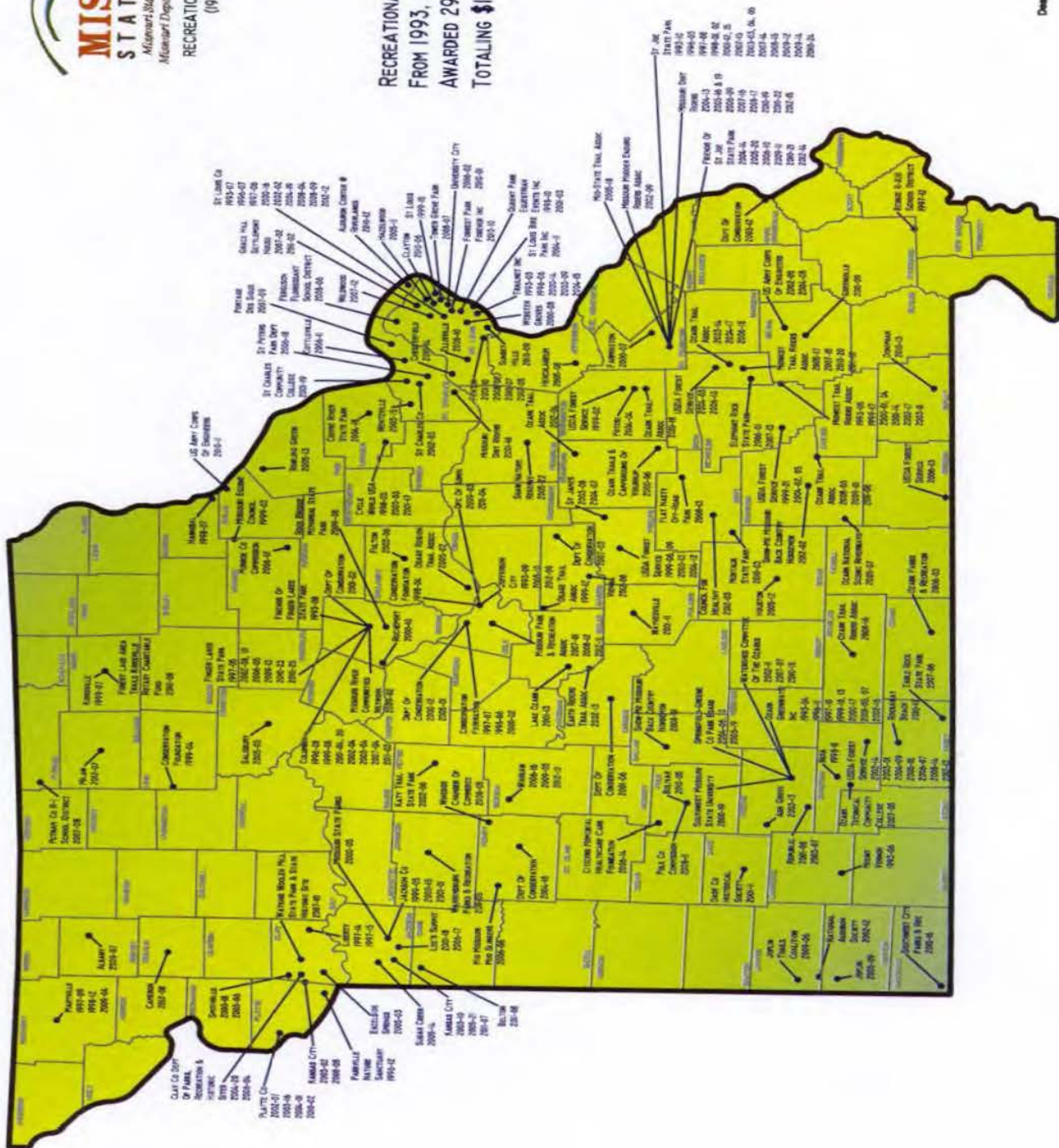
In 1993 and from 1996 through 2012, the Recreational Trails Program funded 293 grants for the state of Missouri totaling more than \$18 million dollars (Figure 7).



RECREATIONAL TRAILS PROGRAM GRANTS
FROM 1993, 1996-2012
AWARDED 293 GRANTS
TOTALING \$18,598,360.92

LEGEND

DEVELOPMENT OF AREA RECEIVING FUNDS
TOTAL YEAR OF FUND & FUND NO.



Designed By: Janet Pronger

Figure 7- Missouri Grant Locations

Landmark Local Parks Program funds

The Landmark Local Parks Program (LLPP) was started by the late Governor Mel Carnahan in 1997 to help Missouri cities and counties meet outdoor recreation needs during the years when the Land & Water Conservation Fund was not available due to federal budget cuts.

The LLPP was funded by the state of Missouri through the Department of Natural Resources-Division of State Parks for five years, through fiscal year 2001.

Through the program, the Division of State Parks helped 87 communities successfully complete outdoor recreation projects. The state funded approximately \$21 million through 108 grants. These grants leveraged approximately \$35 million of outdoor recreation enhancements, with the local communities providing the additional \$14 million in matching funds.

Municipal Taxes for Local Parks

Currently, 177 communities in Missouri fund local parks through a local sales tax of up to one-half of one cent. The State of Missouri grants municipalities and counties the authority to pass a local sales tax to fund parks and/or stormwater control projects, pursuant to [Section 644.032 RSMo](#).

Other Public Funding

In some areas, local taxes provide funding for outdoor recreation. For example, Great Rivers Greenway, the Kansas City Zoo and the St. Louis Zoo are funded through separate taxing districts, just to name a few.

Nonprofit and Private Funding

Hundreds of non-profit environmental and conservation organizations and umbrella groups like EarthShare²⁸ of Missouri fund environmental education and outdoor programs through private donations and workplace giving campaigns.

Need for New Funding Sources

Professionals throughout Missouri cite lack of a consistent funding source as a major obstacle to improving outdoor recreation in Missouri. They also understand that educating the public on the benefits and value of being active outdoors is extremely critical to the future of outdoor recreation in Missouri.¹¹ Half of Missouri's parents surveyed said they would make educating their children about the outdoors a higher priority next year than it was last.²⁷

²⁸ EarthShare of Missouri. www.earthsharemo.org.

Research and Findings

What Missourians say about outdoor recreation

Four primary research studies on outdoor recreation in Missouri informed and guided the development of this SCORP:

- Missouri Residents and Professionals Survey 2009
- Missouri Residents Survey 2011
- Parks and Recreation Professionals Survey 2011
- Missouri Trail Inventory

Missouri Residents and Professionals Survey 2009

The Missouri Residents and Recreation Professionals Opinions on Parks & Recreation Study was conducted in 2009 to assess the opinions, attitudes, perceptions and values of residents and recreation professionals as they relate to outdoor recreation in Missouri.

The Missouri Parks and Recreation Association (MPRA) in conjunction with Missouri State Parks, The Conservation Federation of Missouri, the Open Space Council and the Missouri Parks Association initiated the study to better understand the needs and concerns of the public, and the values and perceptions they place on parks, recreation and open space. Ultimately, the goal was to develop outcomes that would ensure that parks and recreation services are understood, appreciated and valued by the public, and thereby supported and protected through community and political support.

According to the National Recreation and Park Association (NRPA), the stakes are high. The positive effects of outdoor recreation on physical and mental health, social wellbeing, youth development and the environment all have real economic impact in the community.²⁹

The NRPA summary of research found that “parks and recreation departments are leading weapons in the battle against obesity. They benefit local residents’ psychological wellbeing by reducing anxiety and depression, and increasing resilience and concentration. Parks help young people build necessary life skills and help adults function as part of the social community. Parks improve the local air quality and help the overall environment. All these benefits help municipalities’ bottom lines.”

By understanding and communicating the benefits of outdoor recreation to residents, recreation professionals and elected officials can positively influence support for outdoor recreation.

Methodology

The study involved a telephone survey of 874 Missouri residents and an email survey of 349 recreation professionals and public officials.

²⁹ Summary of Research Papers 2010: The Key Benefits. National Recreation and Park Association.

The surveys explored outdoor recreation in Missouri, specifically:

- Perceived value of parks and outdoor recreation;
- Priorities for government spending;
- Residents' participation;
- Satisfaction with the parks.

Research Results

Priorities and Importance of Governmental Efforts

To study and evaluate public priorities, values and perceptions, the survey asked respondents to rate the funding importance of 13 governmental efforts.

According to the survey, Missourians rank schools/education and public safety (police and fire) in the top tier of funding importance. They rank social services (food, job training and health care), public works (roads and sewers), affordable housing, environmental protection, and conservation of natural resources in a second tier.

The respondents' third tier ranking of funding priorities includes economic development, parks and open spaces, recreation facilities (ball fields, swimming pools, community centers), and preservation of historic and cultural resources. Communities connected by sidewalks and trails, and community beautification projects rank in the respondents' bottom tier of funding importance.

Values

Missourians believe parks are beneficial to their wellbeing.

More than 90 percent of Missourians believe that spending time outdoors leads to a happier and healthier life, and that parks, recreation and open space are important for good health.

And their instincts are correct – studies show that a 15-minute walk in a forest environment reduces stress more than the same experience in a city environment, as measured by lower concentrations of cortisol, lower pulse rate, lower blood pressure and reduced stress.³⁰

They value parks for various reasons.

Missourians value parks for a wide variety of ecological, family, community and personal reasons. Nearly 80 percent of residents say cleaner air and water, healthy childhood development, and positive family activities are very important benefits of parks and recreation activities. Two-thirds rate wildlife habitat, health and fitness, stress relief and employment opportunities as very important benefits, and sixty percent believe protection of natural and historic resources is a very important benefit of parks and recreation.

Missouri residents want parks in their neighborhoods.

When asked whether having a park or open space nearby would be an important criterion when purchasing a home, 84 percent agree, including more than half of respondents who say a nearby park or open space would be very important.

³⁰ Kuo, Frances E. (Ming). Parks and Other Green Environments: Essential Components of a Health Human Habitat. 2010

From activity, health and economic standpoints, various studies demonstrate the value of parks. People who live within a mile or within walking distance of a park or facility are more likely to participate in recreation activities.³¹

Adolescents with easy access to multiple recreation facilities were both more physically active and less likely to be overweight and obese than were teens without such access.³²

Parks also are good for the economy. According to the Department of the Interior, our nation's federal parks, refuges and monuments generate nearly \$25 billion in recreation and tourism.³³

Missouri state park visitors spend approximately \$410 million a year and generate an estimated total economic impact of \$538 million, according to an economic impact study conducted by the University of Missouri. Approximately, 22 percent of visitation comes from out-of-state, bringing new dollars into the local economy³⁴.

Parks closer to home also have a direct impact on local home values. A Portland, Oregon study showed that having a park within 1,500 feet of a home increased its property value by \$1,214 to \$5,657.³²

Connectivity and funding for trails and connections rank high.

More than 60 percent of residents believe connections between neighborhoods are important to their quality of life, and 74 percent say that connecting communities by sidewalks and trails is an important government expense.

Residents tend to link the idea of parks and recreation to facilities and activities, not to health or environmental benefits.

When asked what comes to mind when they think about parks and recreation, the most common answers among residents are physical facilities, places or programs. They do not readily connect parks and outdoor recreation to health, environmental conservation or family activities, benefits that they value more highly than facilities.

Funding Priorities

Missourians are strongly committed to conservation and environmental protection, but they rate parks and recreation as less important.

Nearly 90 percent of residents believe local communities have a responsibility to preserve and maintain open space in Missouri. When asked to compare the importance of all types of governmental expenses, 94 percent of Missourians say conservation of natural resources is “very” or “somewhat important”, just behind education, public safety and public works.

³¹ Godbey-Mohen. The Benefits of Physical Activity Provided by Park and Recreation Services: the Scientific Evidence. National Rec and Park Association. 2010.

³² Economic Benefits of Open Space, Recreation Facilities and Walkable Community Design. Active Living Research, a national program of the Robert Wood Johnson Foundation. May 2010.

³³ Economic Impact of the Department of the Interior's Programs and Activities. 2009.

³⁴ Missouri State Parks. www.mostateparks.com

Ninety-two percent of residents rank parks/open space and environmental protection as very or somewhat important as government expenses. Eighty-six percent of residents rank recreational facilities such as ball fields and swimming pools as very/somewhat important, just above sidewalks/trails and community beautification projects.

Missourians want tax dollars spent on parks and recreation services for children.

In an era when children are described as “nature deficient,” 93 percent of residents say government spending on recreational services for children is important. Half of Missouri parents say educating their children about the outdoors should be an even higher priority in the future.

Missourians believe parks and recreation agencies should be properly funded, even in difficult economic times.

More than half of Missourians agree that parks, open spaces, greenways and conservation areas should be budget priorities, even in difficult economic times.

Residents and community leaders need to be educated that outdoor activity actually has a positive, far-reaching ripple effect on the economy and on tax revenue. The money spent by Americans in pursuit of active outdoor recreation generates \$88 billion in state and federal sales and income taxes a year, which in turn supports government programs that empower and develop communities.³⁵

Some Missouri residents believe parks are a luxury, not a necessity.

Although 88 percent of Missourians believe local communities have a responsibility to preserve and maintain open space, more than a third of residents say parks, open space, greenways, conservation areas and recreation programs are a luxury, not a necessity. Nearly half of residents and three-fourths of professionals, however, disagree with the statement that parks are a luxury.

Case Study – Community Support

St. Louis County residents demonstrated their support for local parks in October 2011, when the St. Louis County Executive proposed closing nearly half of the county’s 50 parks and eliminating about 140 parks department jobs to cut \$4.3 million from the budget. According to newspaper accounts, the parks would be sold or land-banked. Elk, deer and bison at a wildlife sanctuary could be sold to zoos. Rangers would be eliminated. In fact, a high-ranking county staff member reportedly commented “I didn’t know our parks needed rangers.”

The budget proposal was withdrawn after a crowd of 500 residents, the largest in memory for a meeting at the County administration building, showed up in protest. Ninety people signed up to speak at the budget hearing and several council members expressed their opposition. Groups organized rallies and 4,400 residents signed an online petition protesting the proposed park closures. In early December, the County Executive backed off his plan to close any of the parks, although some park budget cuts and layoffs ultimately were made.

³⁵ Active Outdoor Recreation Economy. Outdoor Industry Foundation. 2006.

Participation

Missouri residents are active outdoors.

More than three-fourths of Missourians visit local community parks “frequently” or “sometimes,” although half say they don’t participate as much as they would like.

Missouri Children – Outdoor Activity

The number of hours that Missouri children spend outdoors range widely, but the median number is 12 hours a week. Nationally, 61 percent of children ages six to nine spend 14 or more hours a week outdoors.³⁶ A 2012 study shows that between 58% and 64% of children nationwide spend two hours or more outdoors during the week, depending on the region, and 77% spend that much time outdoors on weekends.³⁷ Meanwhile, kids eight to 18 years old spend more than 53 hours of indoor “screen time” a week.³⁸

A balance of indoor and outdoor recreation is favored. More than half of Missouri residents enjoy indoor and outdoor recreation activities about equally well. Of those who do have a preference, a greater number prefer the outdoors.

Cost is not a barrier to recreational participation.

Among the residents who don’t participate in recreation activities as much as they would like, very few blame cost for their lack of participation. Most say work obligations or time constraints get in the way. Residents who never visit parks or recreation facilities most often blame health, age, disability or lack of interest.

Satisfaction

Missourians rate outdoor recreation agencies high.

More than four out of five Missourians believe the quality and availability of parks and recreation facilities in Missouri are good or excellent. They are most satisfied with their local community parks/recreation department followed by Missouri State Parks, the Missouri Department of Conservation, the National Park Service and their local county parks/recreation department.

Missouri residents feel safe in their parks.

Nearly three-fourths of Missourians say safety in their community parks is good or excellent. Those who feel safe also have visited parks frequently in the past two years and give high ratings to the availability and quality of their local parks, the quality of parks and recreation services, and conservation agencies at all levels of government.

Conversely, those who say local parks are not safe do not visit parks regularly, and they rate the availability and quality of local parks and recreation agencies as fair or poor.

Implications of the Study

³⁶ Cordell, H. Ken; Betz, Carter J; Green, Gary T. National Kids Survey: How Much Time Do Kids Spend Outdoors. 2009

³⁷ Cordell, H. Ken, Project Leader. Kids’ Time Outdoors in Different Regions of the U.S. Athens Research Group, Southern Research Station, USDA Forest Service, Athens GA.

³⁸ Generation M2: Media in the Lives of 8- to 18-Year-Olds. Kaiser Family Foundation. 2009.

Missourians love their parks, although they rank them lower in funding importance than other government efforts such as education, social services and public safety. They rank recreational facilities lower in funding priority than parks and open space.

Missouri residents believe local communities have a responsibility to preserve open space, and they rate conservation and environmental protection as important government efforts. Yet nearly a third of Missourians believe that parks and recreation programs are a luxury, not a necessity.

Missourians strongly support the funding of outdoor recreation services for children. They also want neighborhood connections and parks nearby when they buy a home. Still, when compared to other government services, they rank trails and connections lower in funding importance.

The apparent disconnect between what the public wants and what they support for funding indicates a need for better public education and communications. Recreation agencies and communities should consider focusing resources on promoting the *benefits of outdoor recreation* and *recreation services* that match residents' strongest values – children, health, conservation/natural resources, clean air and water, employment opportunities and economics.

For example, Missouri parks and recreation professionals need to educate the public that parks and open space support green conservation and environmental protection efforts. They need to communicate the health benefits of connecting neighborhoods with parks via community trails. And they need to understand that by providing services for children, they not only meet the desires of parents and promote healthy behaviors, they also strengthen the future of outdoor recreation in Missouri.

The study informs agencies and communities that when it comes to outdoor recreation, Missourians most highly value their children, health benefits, conservation and natural resources, clean air and water, employment opportunities and economics.

As a result of this study, MPRA initiated the “Did You Know?” campaign, which was the focus and theme of the 2012 MPRA conference.

"Did You Know" is a fact-based education campaign designed to turn parks and recreation users into knowledgeable advocates through a better understanding of the measurable benefits that a vibrant parks and recreation system provides to the community.

Lee's Summit Parks and Recreation developed a “Did You Know” pilot program that is being used by the MPRA as a template for a statewide educational and repositioning campaign. The program includes editorials, facts, implementation steps, friends-of-the parks set-up procedures, and other tools to help recreation departments customize their own educational programs.

The Missouri Residents and Recreation Professionals Opinions on Parks & Recreation Study 2009 was conducted by Responsive Management for the Missouri Park and Recreation Association (MPRA), and received support from Missouri Department of Natural Resources, Division of State Parks SCORP funds.

MPRA partnered on this initiative with the Missouri Department of Natural Resources, Division of State Parks; the Conservation Federation of Missouri; the Open Space Council of the St. Louis Region; and the Missouri Parks Association.

Full details of the Missouri Residents and Recreation Professionals Opinions on Parks & Recreation Study 2009 can be found in Appendix B.

Missouri Residents Survey 2011

As part of the SCORP effort to better understand outdoor recreation needs and trends in Missouri, DNR contracted with Synergy/PRI/JPA to survey Missouri residents. The statewide residents survey was conducted to:

- Study the popularity, demand and availability of outdoor recreation activity and facilities in Missouri;
- Predict changes in demand for outdoor recreation over the next five years;
- Identify trends and critical issues of statewide importance that are impacting the future of outdoor recreation in the State of Missouri.

The survey looked at eight basic management questions regarding outdoor recreation in Missouri, from the perspective of residents:

- *How familiar are residents with outdoor recreation activities and facilities in Missouri?*
- *How far do they travel and how much time do they spend outdoors?*
- *How available is outdoor recreation in Missouri?*
- *Which outdoor recreation activities and facilities are most popular?*
- *Why don't some residents participate in outdoor recreation activities?*
- *How satisfied are residents with outdoor recreation activities and facilities?*
- *What are residents' opinions and perceptions regarding outdoor recreation in Missouri?*
- *What are their perceived critical issues or suggested improvements?*

Methodology

The telephone survey of Missouri residents was conducted in July 2011. A total of 768 surveys were completed, half in urban and half in rural regions of the state, providing a 95% (+/- 5%) confidence interval for each. Results were combined and weighted based on the 70%/30% urban/rural ratio of the state's population.

The survey focused on residents who had participated in outdoor recreation at a public facility at least once in the past year; those who had not participated in the past year were screened out of the survey.

Specific Action Standards were established for each of the research questions in this study, as explained in the Missouri Residents Study in Appendix C.

Action Standards help determine when action on a particular issue is needed based on the response. Action Standard benchmarks were applied to the entire sample and/or subgroups of at least 96 responses, to ensure a confidence level of 95% (+/- 10%).

In general, if the Top Box score (the number of people who selected the top answer on a question, such as Very Satisfied) was less than 30%, or if the mean score of satisfaction was below 3.5 on a scale of one to five, then action was recommended.

Survey Results

Familiarity, Distance and Time Spent Outdoors

Missourians are very familiar with outdoor recreation in the state, and most are fortunate to have facilities and activities close to home. A third of Missourians live less than a mile from an outdoor recreation facility and nearly two-thirds live within two miles (Table 4).

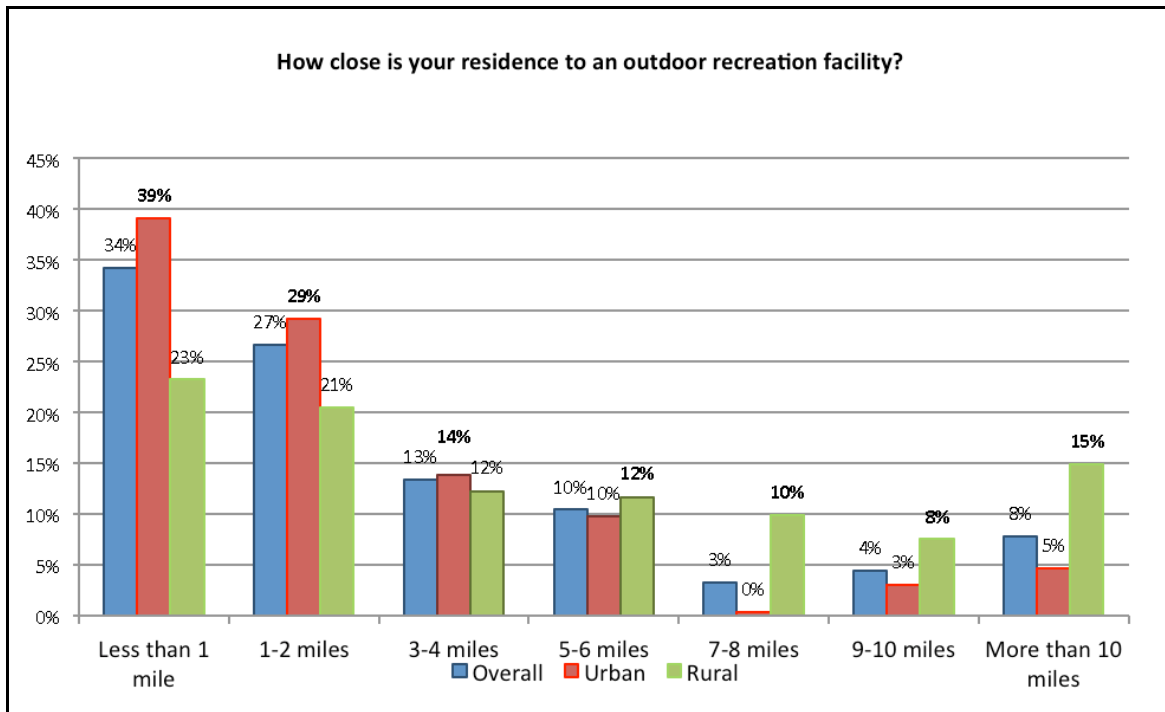


Table 4 - Distance from Home to Outdoor Recreation

During the week, Missourians recreate close to home, with half travelling less than 10 miles from home for outdoor activities (Table 5). On weekends, they venture farther away, with one in five traveling 100 miles from home to participate in outdoor recreation (Table 6).

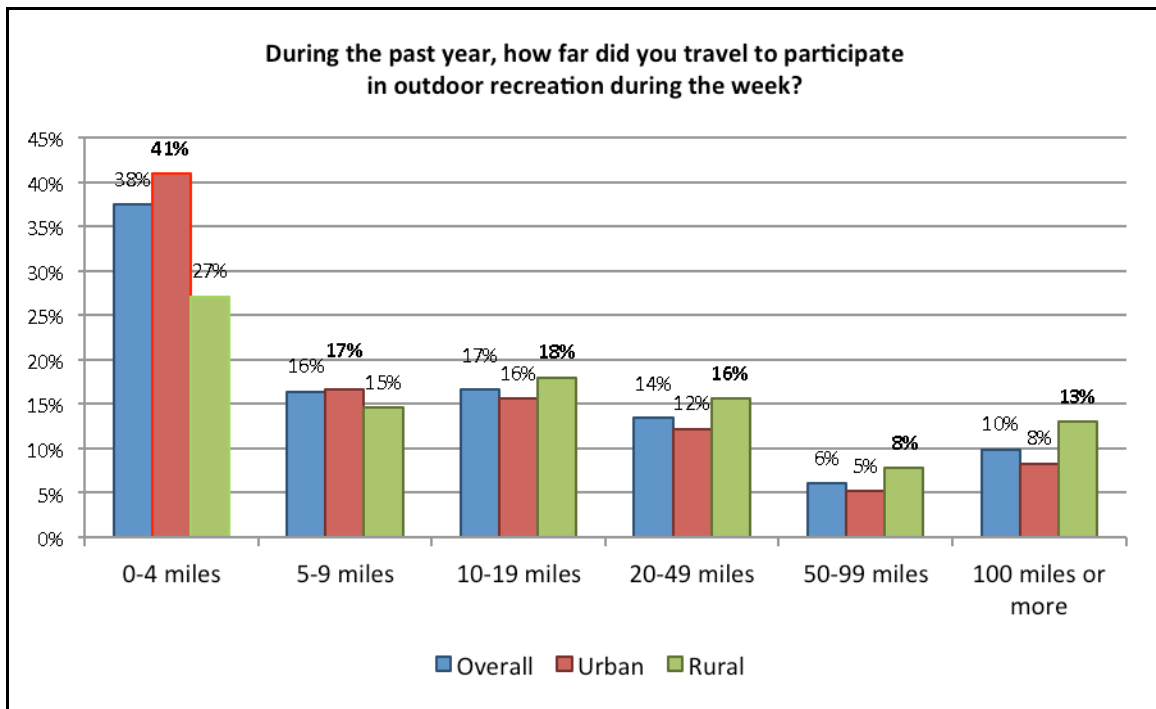


Table 5 - Distance Traveled to Outdoor Recreation During the Week

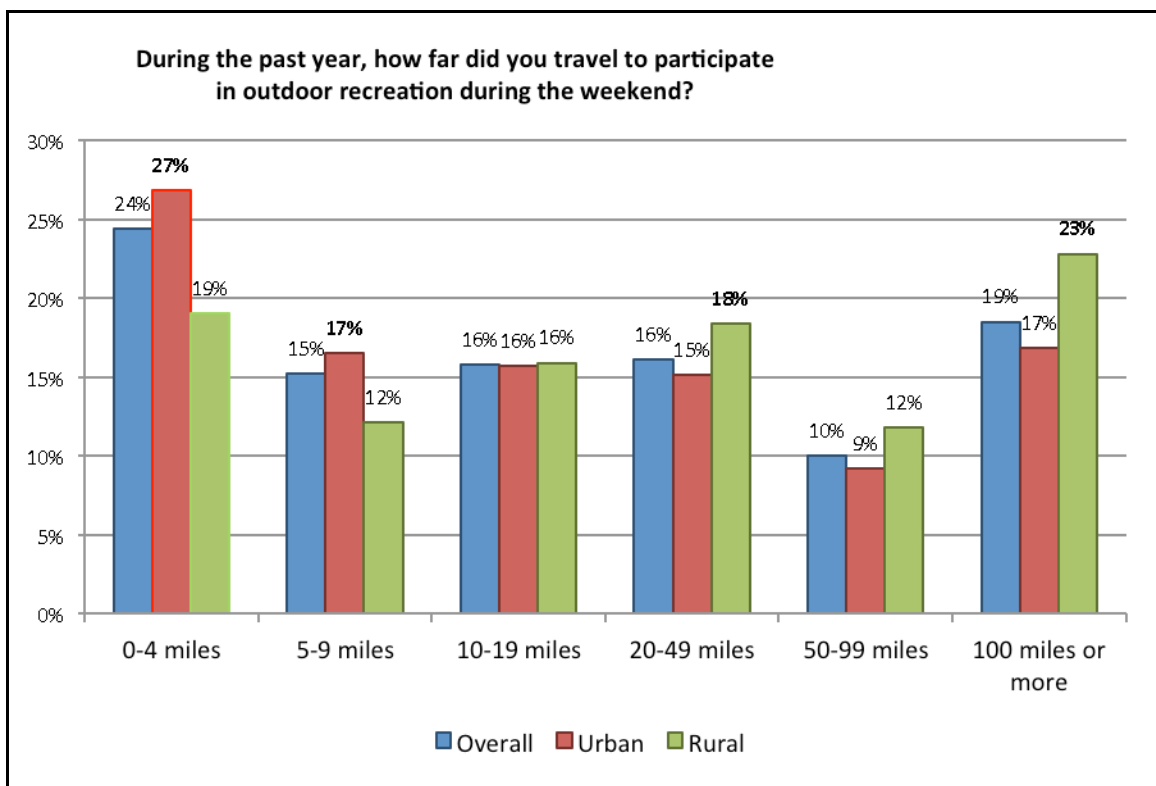


Table 6 - Distance Traveled to Outdoor Recreation - Weekend

More than a third of Missouri residents had participated in outdoor recreation within the week prior to the survey, and more than half had participated in the last month.

Missourians are more active outdoors on weekends than during the week. Two-thirds spend at least three hours or more on outdoor recreation activities on the weekends, and rural residents are more active than urban. One in five rural Missourians spends more than 16 hours per weekend on outdoor recreation, as compared to just one in ten urban residents who spends that much time outdoors (Table 7, Table 8).

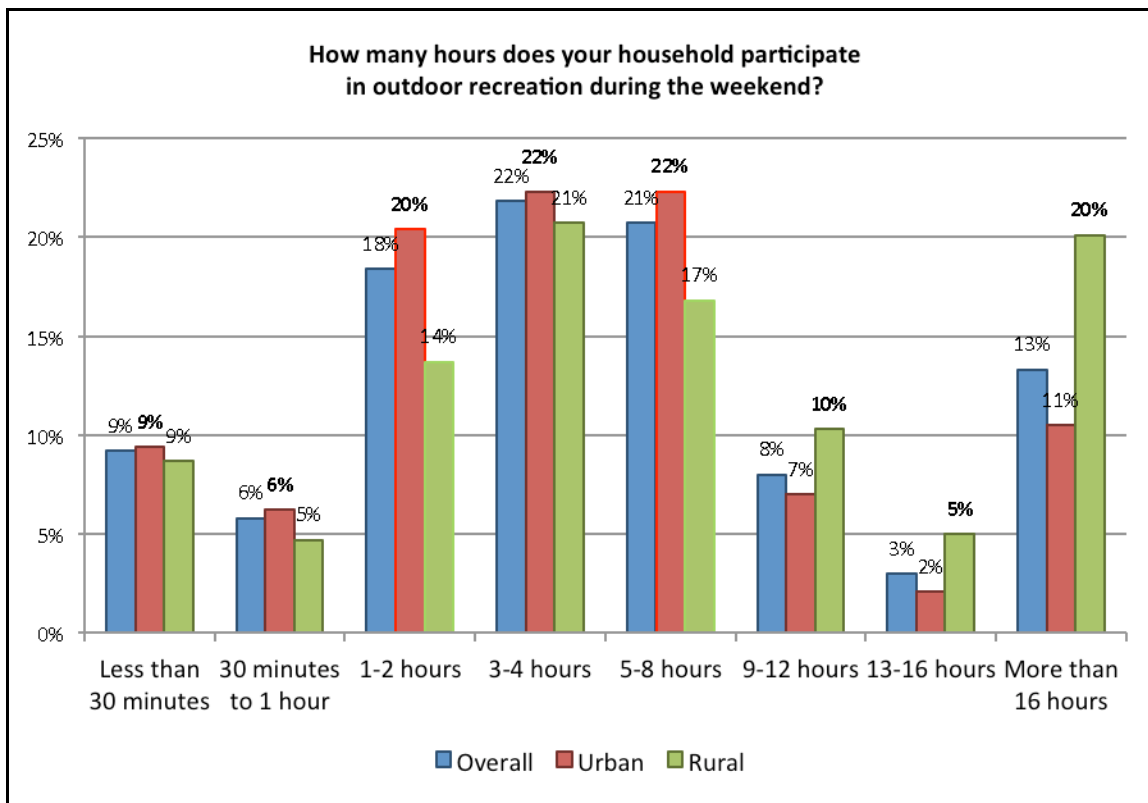


Table 7 - Outdoor Activity on Weekends

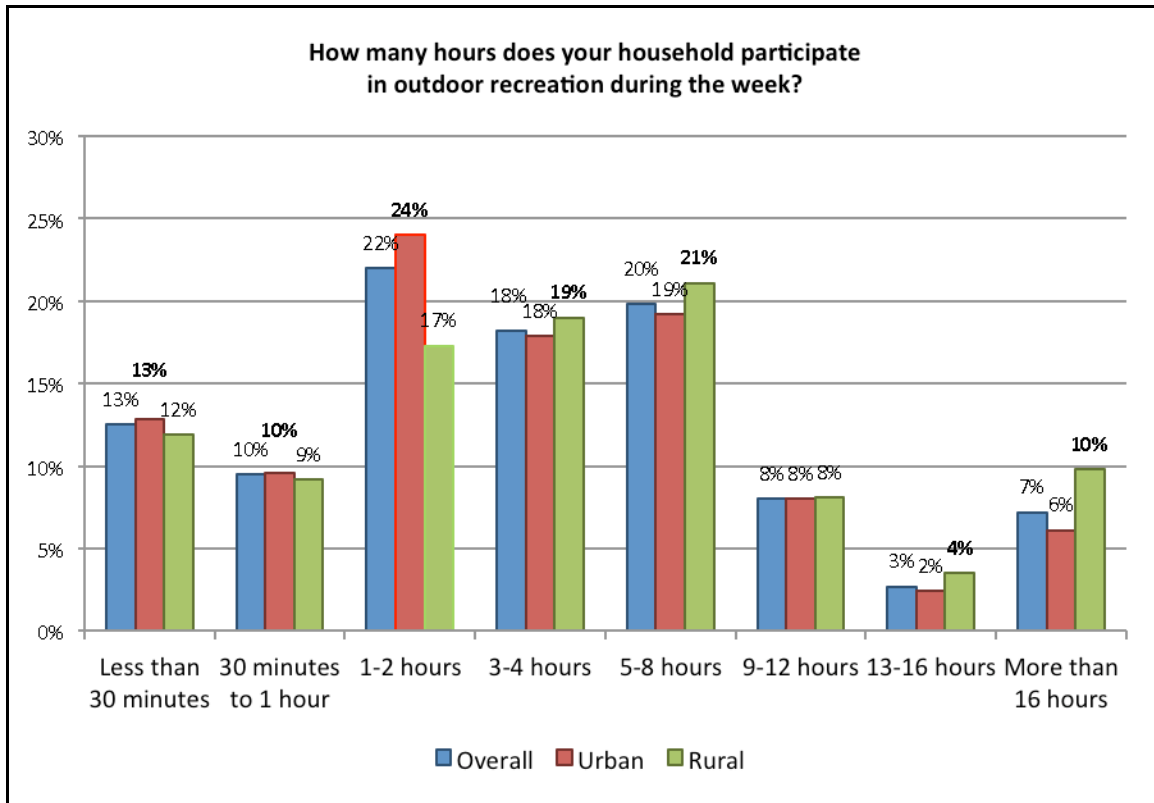


Table 8 - Outdoor Activity During the Week

Nationally, only 40 percent of outdoor enthusiasts participated in outdoor activities at least once a week in 2010, and only 24 percent got outside two or more times per week.³

Availability of Outdoor Recreation

Available Activities

Residents are satisfied with the availability of outdoor recreation activities in Missouri overall, and more than a third are very satisfied.

They are less satisfied, however, with the availability of organized and supervised outdoor recreation programs and only one in five residents is “very satisfied.” In particular, residents who are not satisfied with programs want more opportunities for **walking, biking and youth-related** activities.

Available Facilities

Most Missourians are satisfied with the number and availability of outdoor recreation facilities in the state, but those who are not satisfied want more **walking trails, water parks/pools and parks**.

One in ten Missourians has limited access to **sidewalks**, and more than half of those residents would use sidewalks if they were available in their neighborhoods. Young Americans nationwide

expressed similar desires for sidewalks during President Obama's America's Great Outdoors (AGO) Initiative, suggesting that communities use sidewalks and pathways to link neighborhoods to parks and green spaces.³⁹

Missouri residents who visit certain types of facilities at least once a year say more of those are needed -- **gardens, trails, outdoor swimming pools, camping sites, outdoor aquatic complexes, target shooting sites, ATV/ORV riding areas, outdoor basketball courts, tennis courts and Frisbee golf courses.**

Popularity of Outdoor Recreation

Popular Activities

The most popular outdoor recreation activity among Missourians is **walking** – more than a third of residents walk daily. More than one in five Missourians enjoy daily **gardening, wildlife observation/birding and dog walking** (Table 9).

Most Missouri residents **walk for recreation, join in outdoor family gatherings, drive for sightseeing, visit local parks and garden** at least once a year. More than half enjoy **picnicking, outdoor swimming, visiting historic/education sites, wildlife observation/birding, fishing and boating** at least annually.

Walking, bicycling, baseball and golf are more popular among urban residents while rural Missourians are more likely to be **fishing, boating, target shooting, hunting and ATV riding.**

³⁹ America's Great Outdoors: A Promise to Future Generations. Executive Summary. Council on Environmental Quality, 2011.

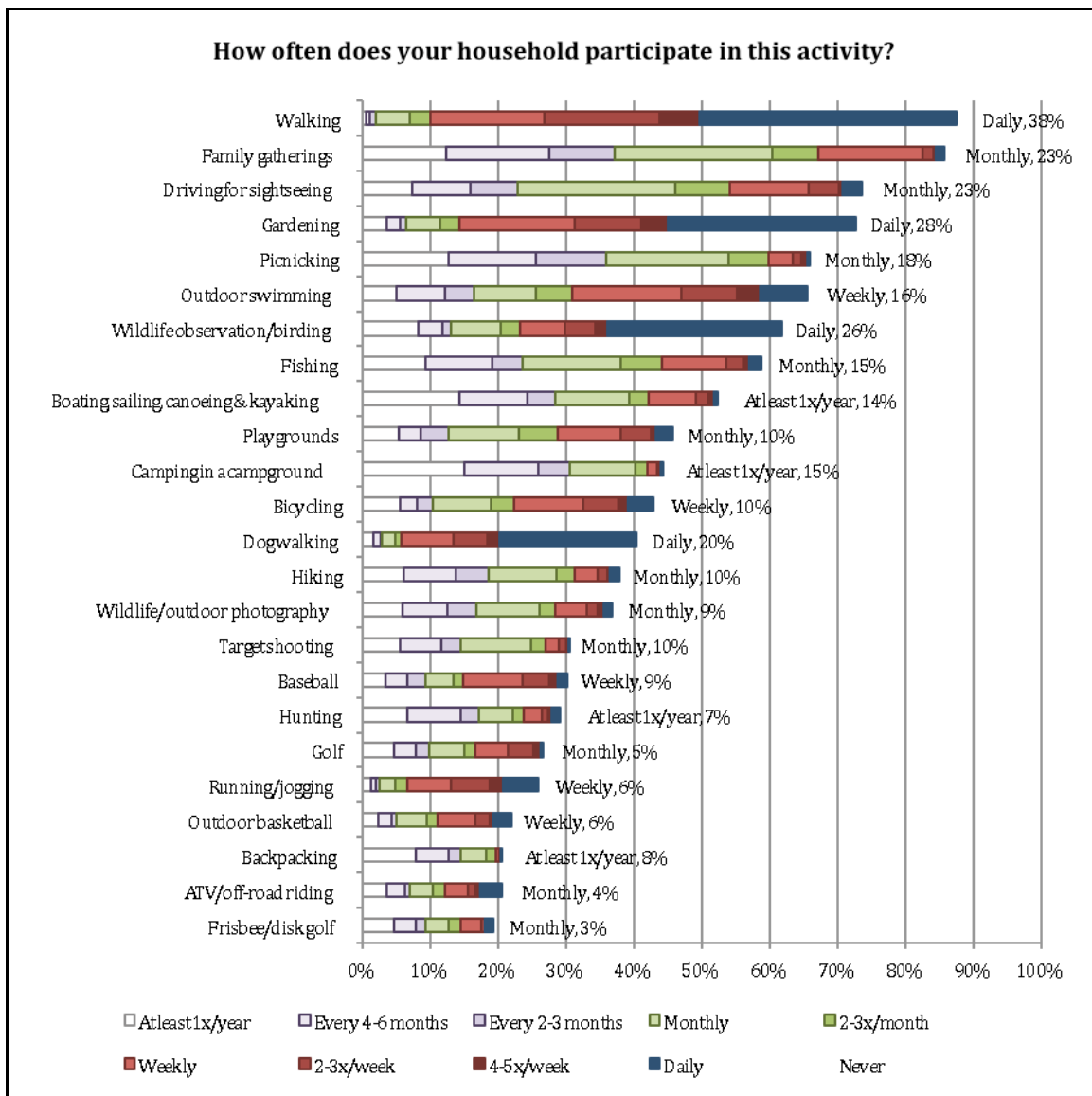


Table 9 - Frequency of Participation

(Daily, Weekly and Monthly labels indicate the most statistically significant responses)

Activity Increasing or Decreasing?

Half of Missourians expect their outdoor activities to increase over the next five years, with more urban residents saying their activity will increase a lot as compared to rural residents (Table 10).

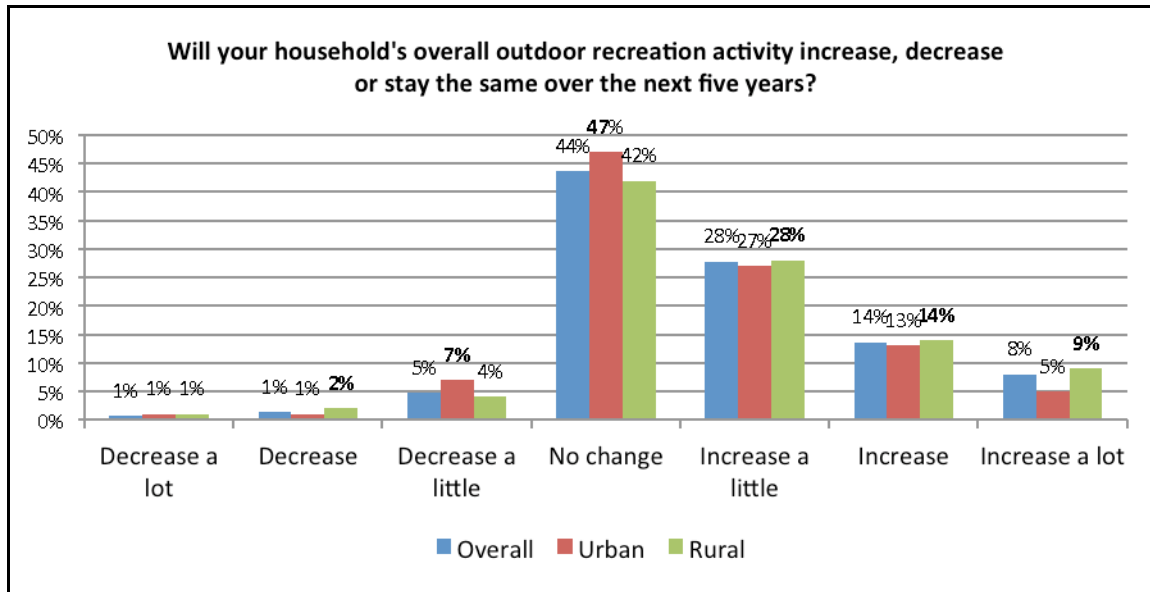


Table 10 - Changes in Activity – Urban vs. Rural

Missourians overall expect to enjoy more **walking, fishing, bicycling, camping, wildlife observation/birding, driving for sightseeing** and **gardening** over the next five years. Among those who currently participate in **fishing, camping, bicycling, baseball, golf, running/jogging** or **soccer**, one in five expects their activity to increase (Table 11).

Nationally, the outdoor activities that people choose is changing over time. Some more traditional activities such as picnicking, visiting historic sites, hunting, horseback riding on trails, sailing, cross-country skiing and diving are becoming less popular. At the same time, walking, family gatherings, wildlife and nature viewing and photography, visiting beaches, visiting farms, ATV/ORV driving, kayaking and snowboarding are becoming more popular. These trends may represent an ordering of priorities and have very significant implications for both public and private providers of outdoor recreation opportunities.⁴⁰

⁴⁰ Cordell, H. Ken; Betz, Carter J; Green, Gary T.; and Mou, Shela H. Outdoor Recreation Activity Trends: What's Growing, What's Slowing? IRIS Internet Research Information Series, 2008.

Will your household's participation in this activity increase, decrease or remain the same over the next five years?

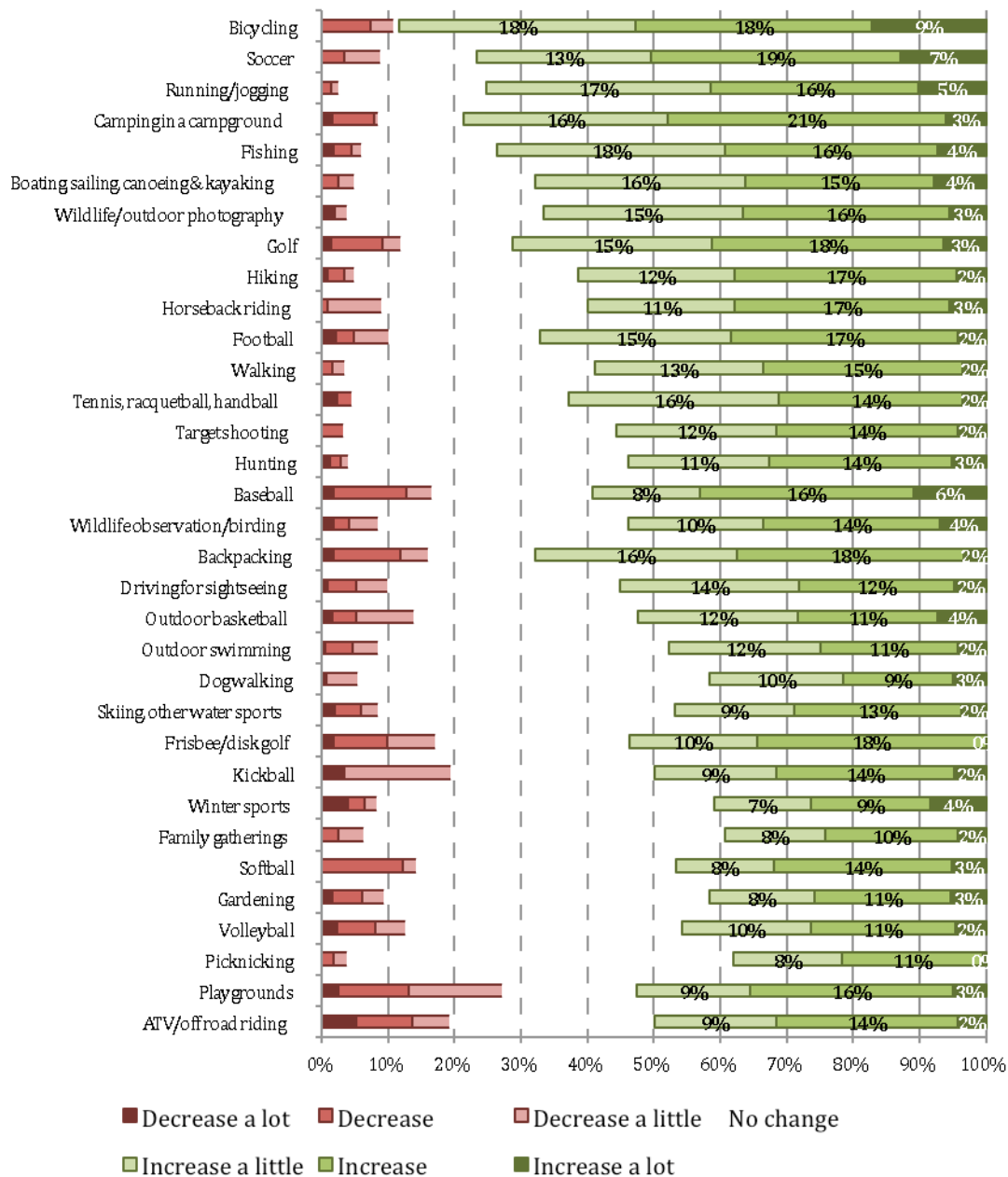


Table 11 - Changes in Activity by Sport

Popular Facilities

Walkable streets/sidewalks, local parks, gardens, fishing sites and outdoor swimming pools are the most popular facilities used by Missourians at least monthly. More than one in five residents visit **playgrounds, lakes, trails, boat access sites, rivers, picnic areas** and **historic/education sites** at least once a month.

Three out of four Missourians use **local parks** and **walkable streets/ sidewalks** at least once a year. More than half visit **historic/education sites, lakes, gardens, picnic areas, and state parks** annually or more often. A recent national study showed that people place a greater priority on having sidewalks and places to take walks than on living within walking distance of specific places in a community, such as stores and restaurants.⁴¹

Not surprisingly, urban residents are more likely to use **walkable streets/ sidewalks** and **local parks** while rural residents are more likely to use **fishing sites, lakes and rivers**.

Why Some Residents Don't Participate

Although the majority of Missourians are active outdoors, a third spend less than two hours on outdoor recreation during the weekend and nearly half spend less than two hours outdoors during the work week.

Nearly one in four residents in the random sample had not visited a *public* park, recreation area or other outdoor recreation facility during the past year, and were screened out of the survey.

Those residents who had not visited a *public* outdoor recreation facility in the past year most often blamed **health concerns/disabilities, lack of interest, cost and economic concerns** and **age**. A few said the **weather, transportation issues, and lack of time** prevented them from getting outdoors. Five percent participate in outdoor recreation on a farm or other *private* property.

Surprisingly, national studies show that lack of time may not be a valid excuse for not participating in outdoor recreation. Americans who are more active outdoors also are more active indoors. Outdoor participants on average spend six to eight more work hours a week than those who are not active outdoors. They make time for outdoor activities by spending fewer hours watching TV and movies than non-active people.³

⁴¹ The 2011 Community Preference Survey: What Americans are looking for when deciding where to live. National Association of Realtors.

Satisfaction with Outdoor Recreation Activities and Facilities in Missouri

Outdoor Recreation Activities

Missourians rate satisfaction with outdoor recreation activities in the state high, at 4.17 on a scale of one to five. But when asked about outdoor recreation activities in their local area, which is where they recreate most often, the satisfaction rating slips to 3.89 out of 5.0.

Missourians also are less satisfied with certain aspects of outdoor recreation activities in the state – the quality and variety of activities, accessibility of information, community participation and their interactions with other users.

When asked about the quality of organized and supervised programs, fewer than one in five Missourians is “very satisfied,” reflecting previously stated concerns about the availability of programs for youth.

Outdoor Recreation Facilities

As with their rating of recreation activities, residents are more satisfied with outdoor recreation facilities in Missouri overall than with facilities in their own local area, where they most often participate.

Missourians are very satisfied, however, with certain aspects of outdoor recreation facilities, including the distance of the facilities from their home, travel time/congestion, professionalism of facility staff, quality, safety and cleanliness. They are less satisfied with the number and variety of facilities and the accommodations for pets/dogs.

Opinions and Perceptions About Outdoor Recreation

The overwhelming majority of Missourians believe that outdoor recreation is important and that it benefits Missouri residents. About half say that funding for outdoor recreation in Missouri is a high priority, and a similar number say that trails are important to their household. More than two-thirds agree that Missouri is well known for outdoor recreation.

Two-thirds of residents with children under 18 say that the outdoor recreation facilities in their local area satisfy their children’s activity needs. Sixty percent say their children participate in enough outdoor recreation activities, which correlates with national studies showing that only 60 percent of children ages six to 24 participate in outdoor recreation.⁴²

For those children who are not physically active, the risk of obesity and diabetes is high. In Missouri, more than 13 percent of children and adolescents are considered obese.⁶

⁴² Special Report on Youth: The Next Generation of Champions. Outdoor Foundation, 2010.

Perceived Critical Issues

Missourians believe that funding is by far the greatest issue affecting outdoor recreation in Missouri. Residents also cite upkeep and a need for more outdoor recreation locations as important issues.

Suggested Improvements

When asked to suggest improvements, Missourians most often mention upkeep, safety and security, funding and better communications about facilities and activities.

Missouri Residents Survey - Importance/Performance Findings

The following “Importance/Performance” charts present satisfaction data from the residents in a grid format, to help planners prioritize actions and resources. The first chart shows results for Missouri overall; the second chart shows results for local areas.

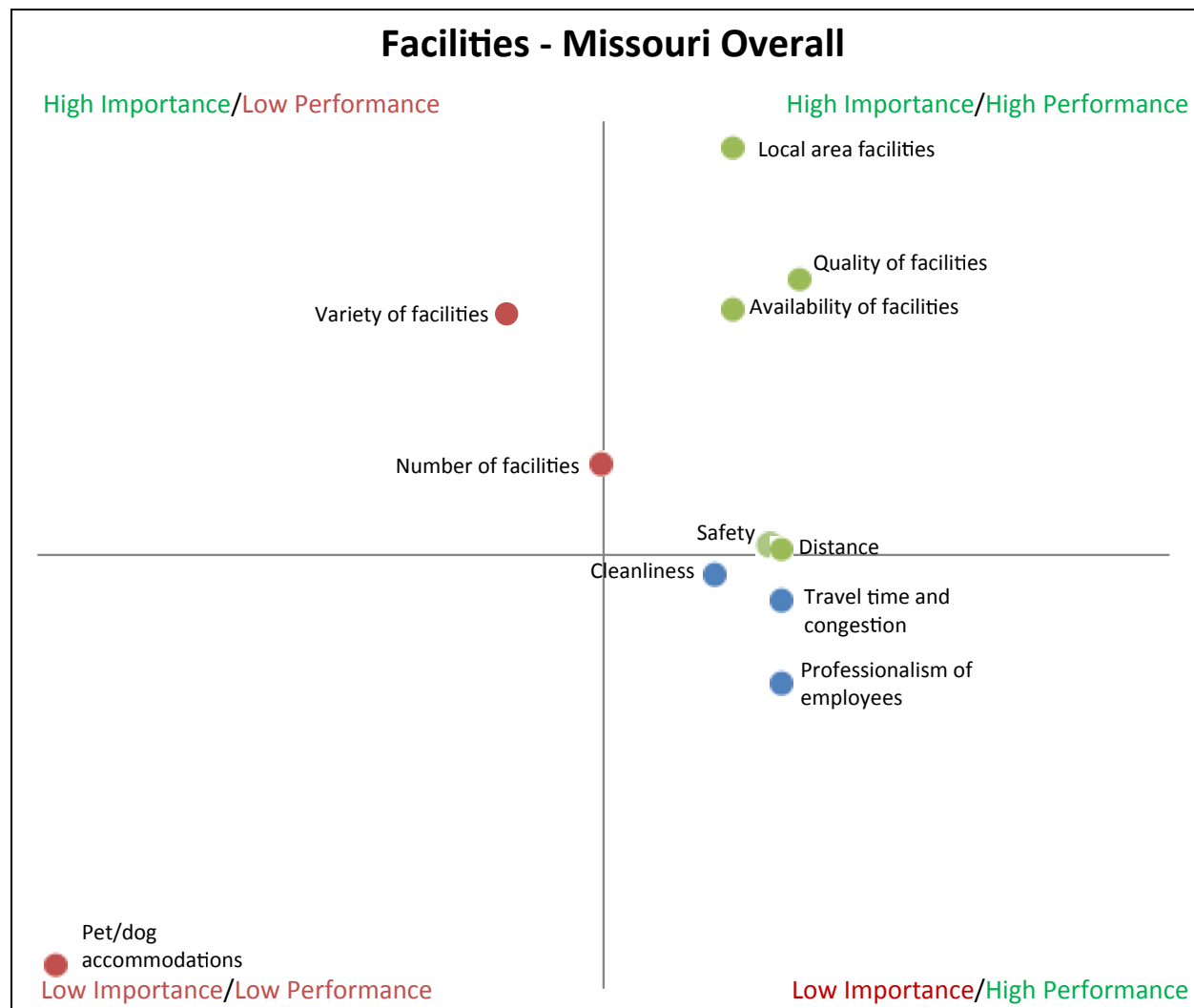


Table 12

In these important/performance charts, the highest priority issues appear in the upper left quadrant. **High Importance/Low Performance** issues are those that are important but are not performing well, and thus deserve high priority resources.

The upper right quadrant of each chart shows **High Importance/High Performance** “stars,” issues that are important and performing well, and thus require fewer new resources.

The lower right quadrant of each chart shows **Low Importance/High Performance** issues, those that are not as important but are performing well. Focus should be on maintaining performance but deemphasizing resources.

The lower left quadrant of each chart shows **Low Importance/Low Performance** issues, those that are neither important to audiences nor performing well, and have low priority for resources. Please explain the differences between circles and squares in the following graphics. Also, labels could be closer to the shapes to better associate the two.

Action standards were developed to determine when action should be taken on a particular issue. The action standards below were applied to the importance/performance measures, as shown on the charts.

High Importance/High Performance - if the relative importance score and the satisfaction mean score are **both above** the 50th percentile (upper right quadrant of the chart), maintain current emphasis and performance.

Maintain performance:

On the local level and in Missouri overall:

- Quality of activities
- Availability of activities
- Quality of facilities
- Availability of facilities
- Distance to facilities

In Missouri overall:

- Variety of activities
- Quality of activities
- Safety of facilities

High Importance/Low Performance - if the relative importance score is **above** the 50th percentile and the satisfaction mean score is **below** the 50th percentile (upper left quadrant of the chart), increase performance.

Shift resources in and increase performance:

Both on the local level and in Missouri overall:

- Number of facilities
- Variety of facilities

In local areas:

- Variety of activities

Low Importance/Low Performance – if the relative importance score is **below** the 50th percentile and satisfaction mean score is **below** the 50th percentile (lower left quadrant of the chart), take action but deemphasize.

Take action but deemphasize:

Both on the local level and in Missouri overall:

- Interactions with outdoor recreation activity users and groups
- Pet/dog accommodations at facilities
- Community participation in local outdoor recreation activities
- Availability of organized/supervised outdoor recreation programs
- Quality of organizes/supervised outdoor recreation programs

In local areas:

- Accessibility of activity information

Low Importance/High Performance – if the relative importance score is **below** the 50th percentile and the satisfaction mean score is **above** the 50th percentile (lower right quadrant of the chart), deemphasize and shift resources to another quadrant.

Deemphasize and shift resources away:

Both on the local level and in Missouri overall:

- Professionalism of outdoor recreation employees
- Cleanliness of facilities
- Travel time and congestion to facilities

In Missouri overall:

- Accessibility of activity information

In local areas:

- Safety of facilities

Importance/Performance – Missouri Overall

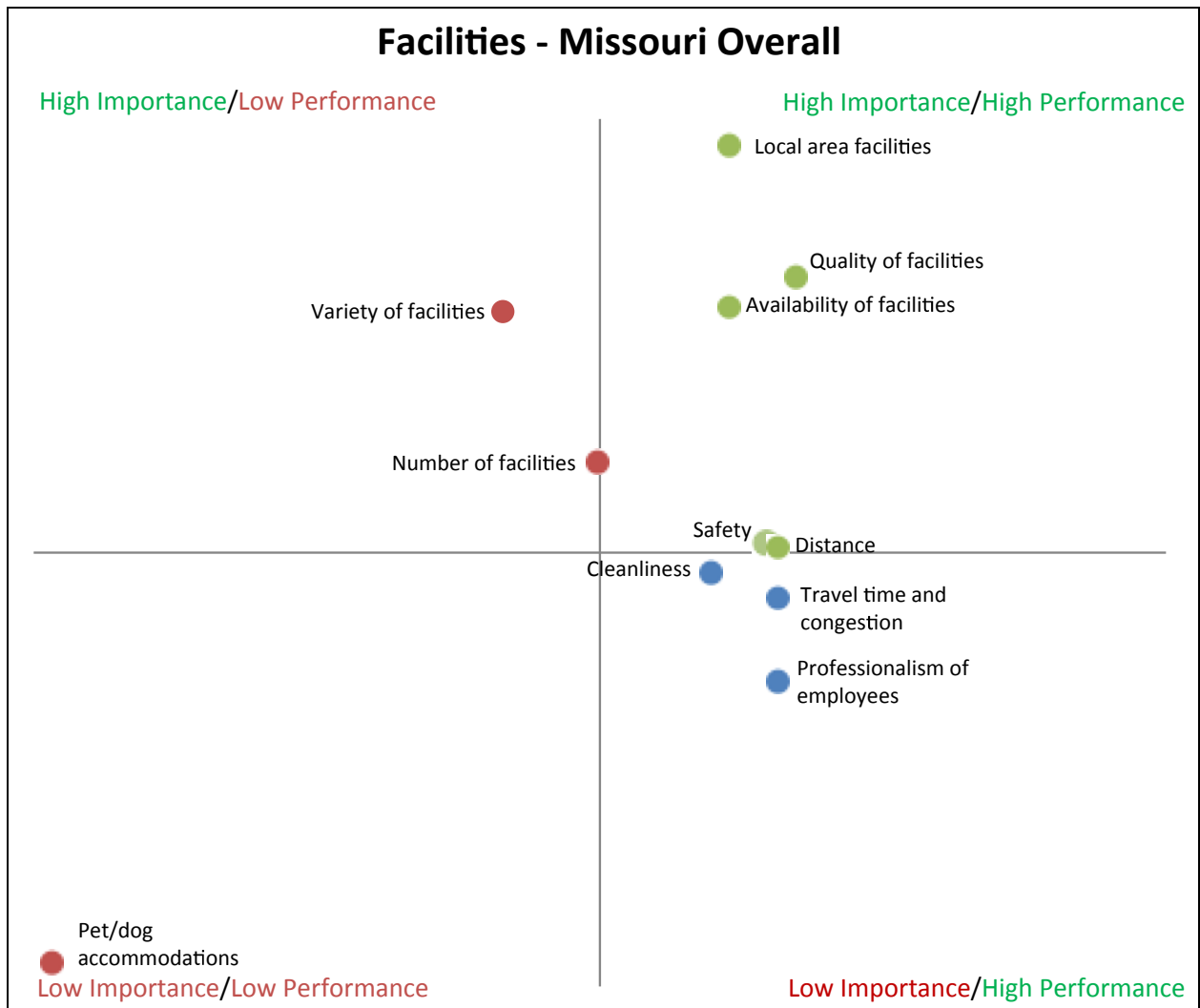


Table 12 - Importance/Performance Facilities - Missouri Overall

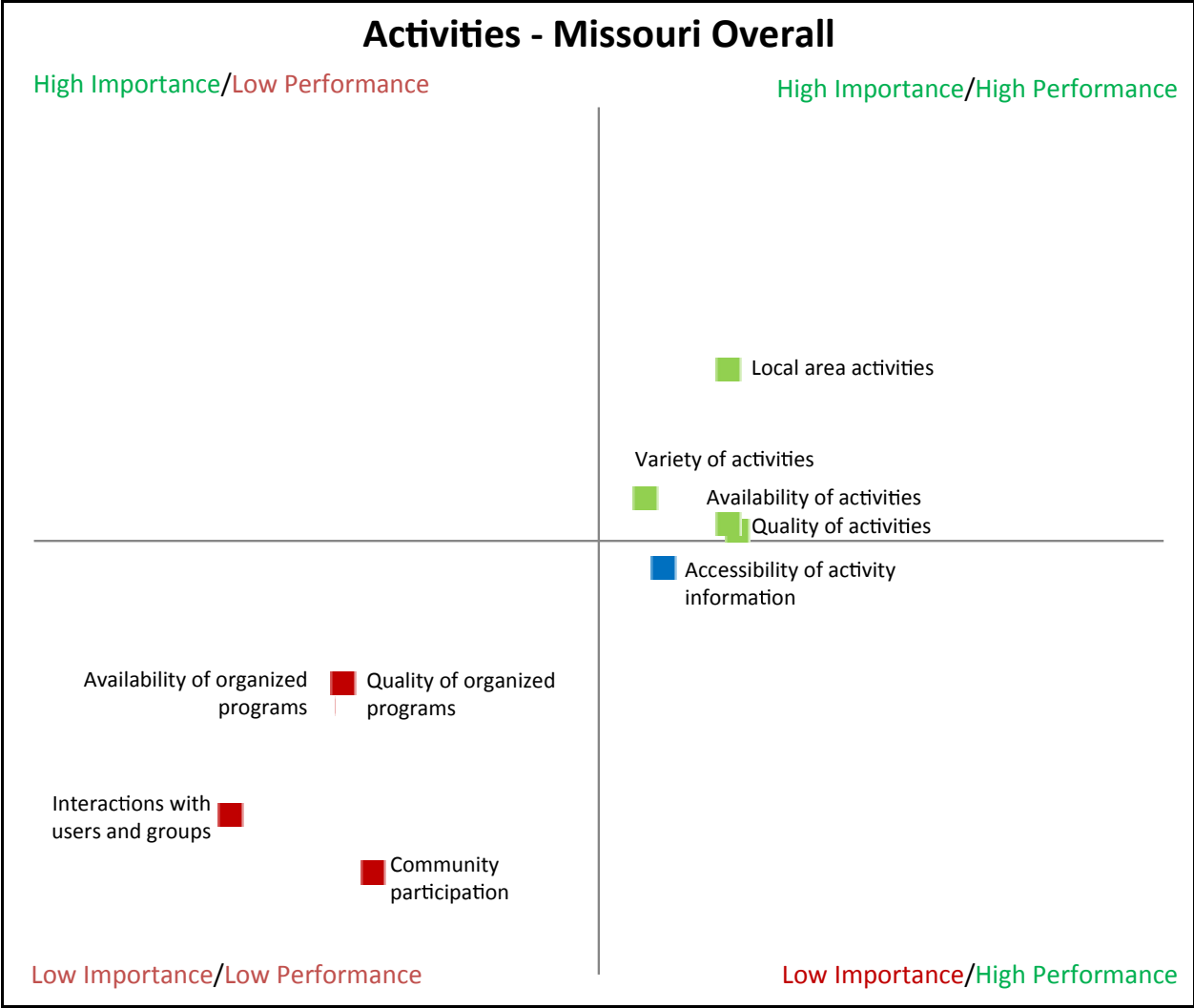


Table 13 - Importance/Performance Activities - Missouri Overall

Importance/Performance – Local Area

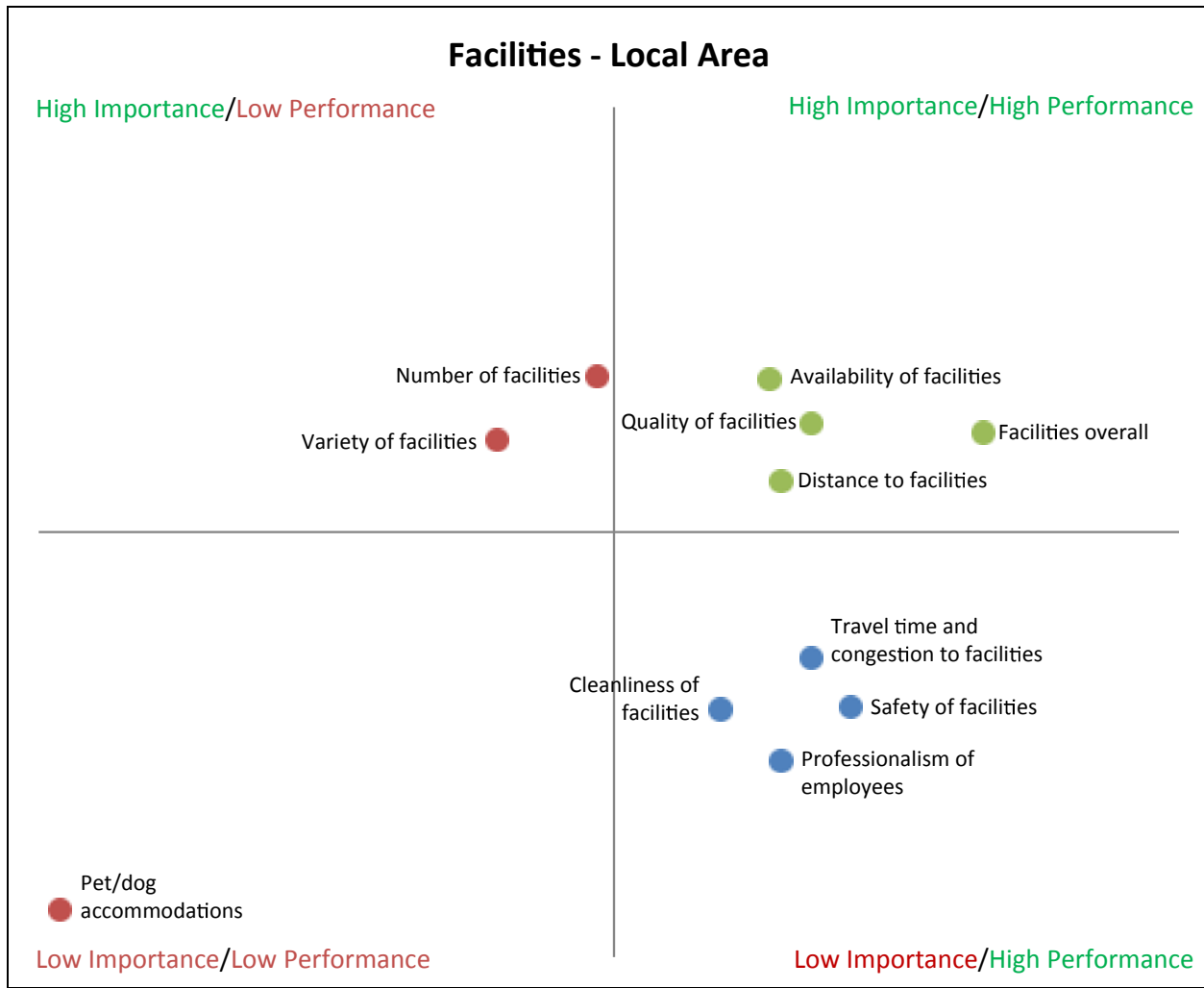


Table 14 - Importance Performance Facilities - Local Area

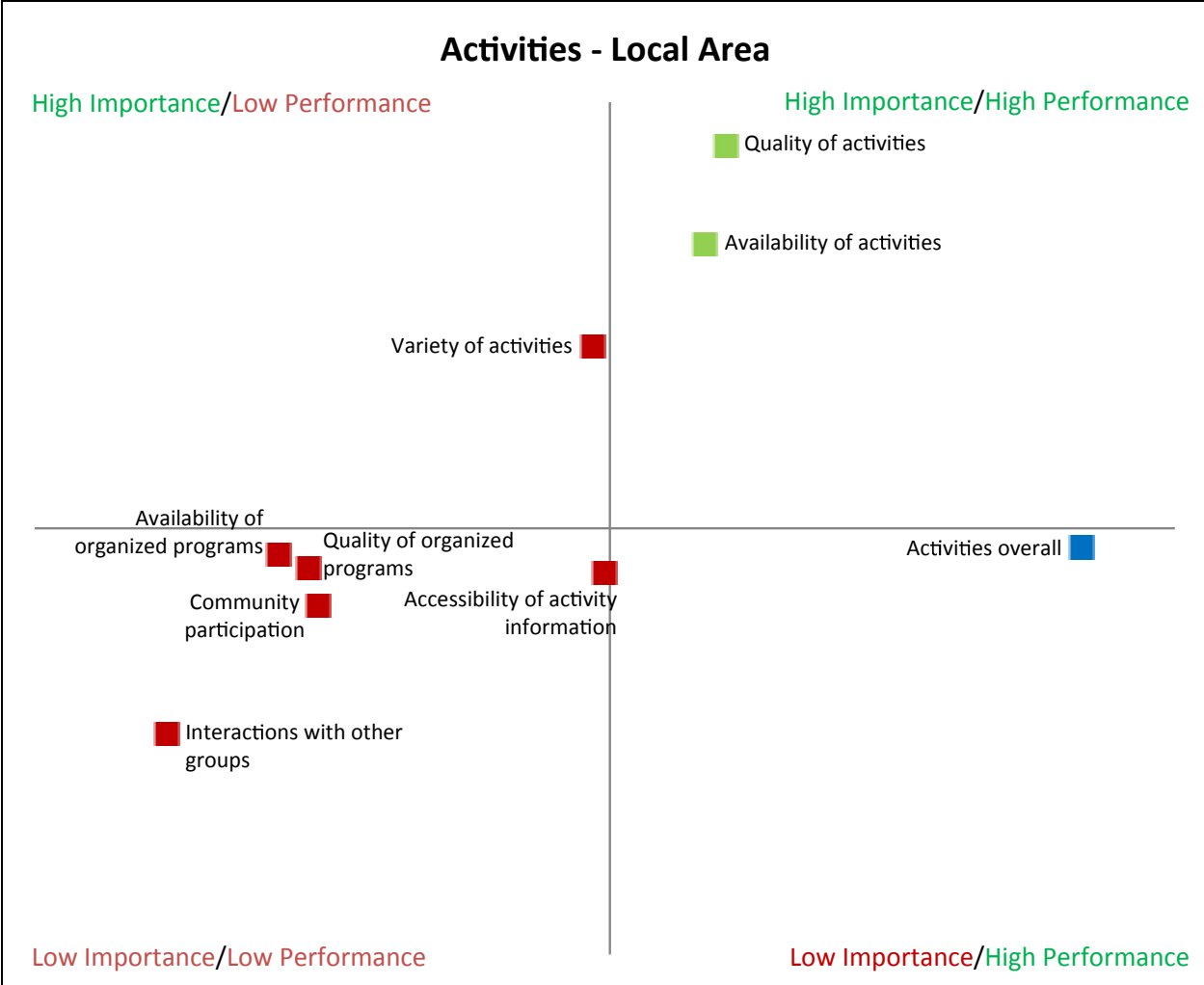


Table 15 - Importance/Performance Activities - Local Area

Summary of Findings

The survey of residents answered important questions regarding outdoor recreation in Missouri and informed the action items outlined later in this report.

Q. How familiar are residents with outdoor recreation activities and facilities in Missouri?

- Most Missourians are familiar with the outdoor recreation in the state, and more than a third are very familiar.

Q. How far do they travel for recreation and how much time do they spend outdoors?

- Most Missourians travel less than 10 miles from home to participate in outdoor activities.
- More than a third had participated in outdoor activities during the week before the survey, just under the national average of 40 percent.
- Two out of three spend at least three hours a week or more on outdoor recreation, particularly on weekends.

Q. How available is outdoor recreation in Missouri?

- Two thirds of Missourians live within two miles of an outdoor recreation facility.
- Six out of ten residents overall say there are enough local parks, but the demand for walkable streets and sidewalks, dog parks, ATV/ORV riding areas and outdoor aquatic complexes exceeds the supply.
- Among Missourians who use these facilities at least once a year, more than one in three says there are not enough outdoor basketball courts, ATV/ORV riding sites and Frisbee/disk golf courses; more than one in five says there are not enough gardens, trails, outdoor swimming pools, camping sites, target shooting sites and tennis courts.

Q. Which outdoor recreation activities and facilities are most popular?

- Walking, family gatherings, driving for sightseeing and gardening are very popular, enjoyed at least annually by more than 70 percent of Missourians.
- More than half of residents participate in picnicking, outdoor swimming, wildlife observation/birding, fishing and water sports at least once a year.
- More than a third visit playgrounds, camp in a campground, bike, walk a dog, hike, and take wildlife/outdoor photos.
- At least one in five Missourians participates in target shooting, baseball, hunting, golf, running/jogging, outdoor basketball, backpacking and ATV/ORV riding at least annually.
- Half of Missourians expect to be more active outdoors over the next five years.
- Participation in fishing, camping in a campground, bicycling, baseball, golf, running/jogging and soccer is expected to increase over the next five years.

Q. Why don't some residents participate in outdoor recreation activities?

- Those who don't participate at all most often blame health concerns/disabilities, lack of interest, cost and economic concerns, and age.
- Weather, transportation issues and lack of time prevent some residents from getting outdoors.

Q. How satisfied are residents with outdoor recreation activities and facilities?

- Residents are satisfied overall but want more supervised/organized outdoor recreation, particularly for youth.
- Residents want improvements in community participation in outdoor recreation, interactions among users, and the quality of organized/supervised programs.
- Residents want a wider variety of outdoor recreation facilities and better pet/dog accommodations at those facilities.

Q. What are residents' opinions and perceptions regarding outdoor recreation in Missouri?

- Most Missourians believe outdoor recreation is important and benefits them.
- More than half say Missouri is well known for outdoor recreation, funding for outdoor recreation is a high priority, and trails are important.

Q. What are their perceived critical issues or suggested improvements?

- Residents consider funding, upkeep and more locations/availability as the most critical issues affecting outdoor recreation in Missouri.

Full details of the Missouri Residents Study can be found in Appendix C.

Missouri Parks and Recreation Professionals Survey 2011

Over the next five years, the population of Missouri will grow older, more diverse and more urban, while also trending toward the top nationally in such critical issues as obesity and poverty.

Within this changing environment, parks and recreation professionals, like many others, are being asked to “do more with less” as they strive to meet the needs of six million residents.

To make the 2012-2017 SCORP a viable planning tool, Missouri DNR, Division of State Parks needed a first-hand understanding of the challenges that parks and recreation professionals face.

A statewide telephone survey of Missouri parks and recreation professionals and providers was conducted to gather data on outdoor recreation popularity and demand, the issues and obstacles impacting outdoor recreation, and a needs-based inventory of outdoor recreation facilities and services in the state.

The survey or professionals looked at eight basic questions regarding outdoor recreation in Missouri:

- *Which types of outdoor recreation are most popular?*
- *How available are various types of outdoor recreation facilities?*
- *Which types of outdoor recreation facilities need the most improvement?*
- *How well are we meeting the needs of various age groups?*
- *How adequate are support components such as transportation, restrooms, drinking water, and disability access?*
- *What are the greatest outdoor recreation priorities?*
- *What are the obstacles that prevent improvements in outdoor recreation?*
- *What critical issues are impacting outdoor recreation?*

Methodology

A telephone survey of Missouri parks and recreation professionals was conducted in May/June of 2011. The sample of professionals to be surveyed was taken from several organizational lists, which were condensed to 600 contacts. Only one person at each outdoor recreation facility or provider was called.

The survey achieved a completion rate of 25%, providing a 95% confidence level with a confidence interval of +/-6.91%. The 150 survey participants included directors, superintendents, supervisors, planners and educators.

When data sets within the survey results were large enough, data was cross-tabulated to compare urban vs. rural and to report regional results.

For this survey, regions are classified by telephone area code:

- 🕒 **St. Louis-East** – 314 area code
- 🕒 **East-Central** – 636 area code
- 🕒 **Northeast-Central-Southeast** - 573 area code
- 🕒 **Southwest** - 417 area code
- 🕒 **Northwest** - 660 area code
- 🕒 **Kansas City-West** - 816-area code.



Survey Results

As Missouri outdoor recreation professionals face the challenge of “doing more with less,” they also report that public interest and demand is shifting toward close-to-home and multi-use recreation options, which can efficiently meet the needs of a wide range of interests and age groups.

For example, trails and trail connections, walkable streets and sidewalks, multi-use fields, playgrounds, picnic areas and gardens are increasingly popular and cost-effective solutions to the challenge of diverse public needs.

Missouri professionals also acknowledge a lack of activities and facilities to interest teens and Missouri’s expanding older adult population. They see a need to improve facilities such as camping and historic/education sites, and to collaborate with other agencies on issues such as transportation.

Major issues on the minds of outdoor professionals in Missouri include overall funding, educating the public about the benefits and importance of outdoor recreation, and securing funding for facility upkeep and maintenance.

Statewide Popularity Trends - Past Five Years

Over the past five years, **trails, playgrounds, multi-use fields, picnic areas, gardens and soccer fields** have increased the most in popularity, according to Missouri outdoor recreation professionals.

Trails in particular became much more popular in Missouri over the past five years, a trend echoed by national studies. Fortunately, trails can support a wide variety of activities. Some of the 20 most popular American outdoor activities can take place on trails – running/jogging, biking, bird watching, triathlon training and hiking.³

Trails can be a “gateway” to other outdoor activities and an important asset in fostering the growth of outdoor recreation in communities. Gateway activities have a contagious effect, according to the Outdoor Foundation. People who participate in gateway activities get hooked on outdoor recreation and often go on to try other activities. In fact, 88 percent of bikers participate in one or more other outdoor activities.³ Running became the most popular gateway activity nationwide in 2010, a trend that could fuel demand for trails locally.

Walking trails also are important in increasing outdoor activity and health among youth and the growing segment of older adults in Missouri. Research shows that people who have walking routes near their homes get outdoors more often than those who do not have them nearby. Parks with paved trails are 26 times more likely to be used for physical activity than parks without paved trails.⁴³

⁴³ Outdoor Recreation, Health & Wellness: Understanding and Enhancing the Relationship. Outdoor Resources Review Group Resources. 2009.

Having a network of safe and accessible walking trails leads to better health and increased participation among youth, and make parents feel more secure about their children’s safety.⁴⁴ And adolescents who bicycle are half as likely to be overweight as adults.⁴⁵

Football fields, baseball fields, picnic areas, fishing sites and outdoor swimming pools in Missouri also have increased in popularity over the past five years. Popularity has not changed much at **target shooting sites, hunting sites, golf courses, boating and water access sites, camping sites and volleyball courts.**

Fishing and camping also are major gateway activities, and especially important to foster. According to the U.S. Fish and Wildlife Service’s “National Survey of Fishing, Hunting and Wildlife Recreation” report, 1.1 million Missouri residents and non-residents fished in the state during 2006.⁴⁶ Nationally, 86 percent of fishing participants and 83 percent of camping participants also participate in other outdoor activities.³

Urban vs. Rural Popularity Trends – Past Five Years

For the most part, the popularity of outdoor recreation activities over the last five years was similar in urban and rural areas. The exceptions are **picnic areas, tennis courts and pools**, which were more popular in cities and towns (Table 16).

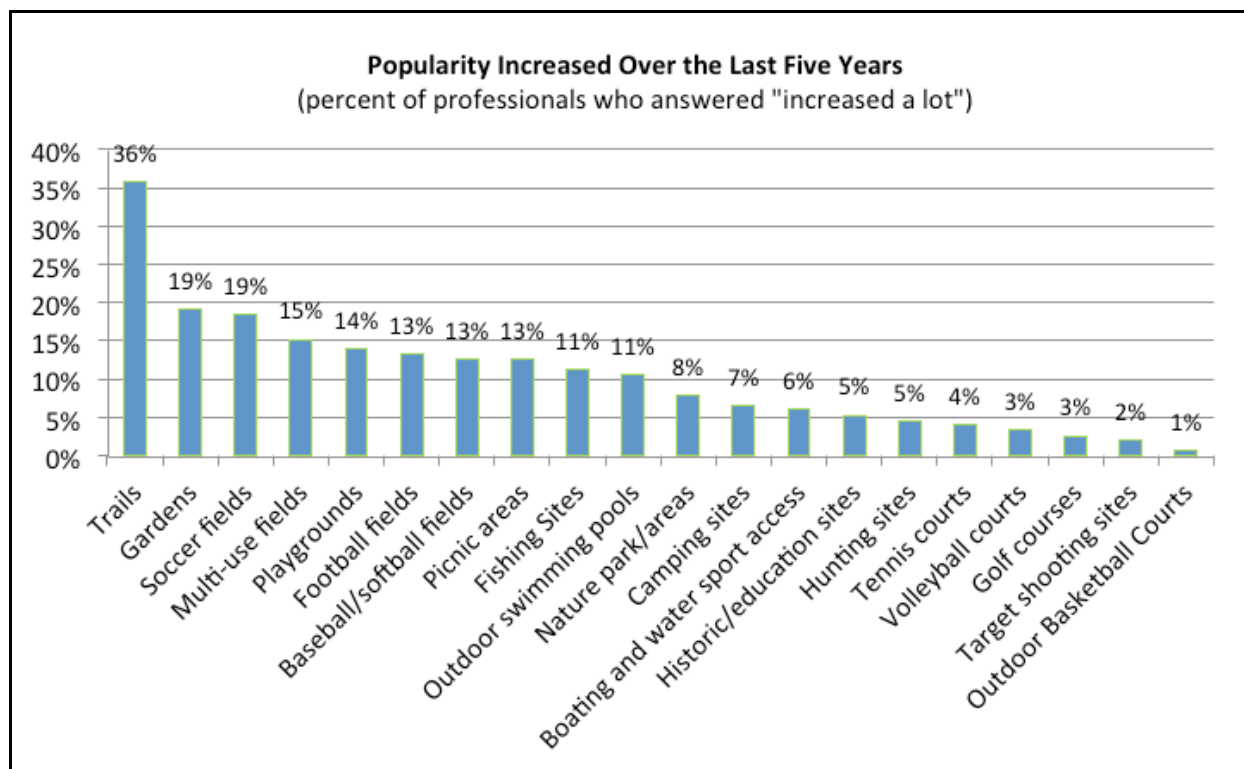


Table 16 - Activity Increases Last Five Years

⁴⁴ “Solving the Problem of Childhood Obesity Within a Generation.” White House Task Force on Childhood Obesity: Report to the President. 2010.

⁴⁵ When People Ride Bikes, Good Things Happen. Bikes Belong. 2011.

⁴⁶ National Survey of Fishing, Hunting, and Wildlife – Missouri. U.S. Fish and Wildlife Service. 2006

Statewide Popularity Trends - Next Five Years

Missouri professionals predict that **trails, playgrounds, multi-use fields, picnic areas, gardens** and **soccer fields** will become even more popular over the next five years, with more than a third projecting a particularly significant increase in demand for trails (Table 17).

Professionals nationwide also report a growing popularity of multi-use facilities, which offer many types of recreational amenities and serve a broad spectrum of ages.

According to the Outdoor Resources Review Group, providing many different types of facilities is a promising recreation planning policy because children engage in such a variety of activities and their recreational needs vary widely by age.⁴³

Most professionals in Missouri don't expect the popularity of **target shooting and hunting sites, volleyball courts, camping sites, golf courses, boating and water access site and outdoor basketball courts** to change over the next five years.

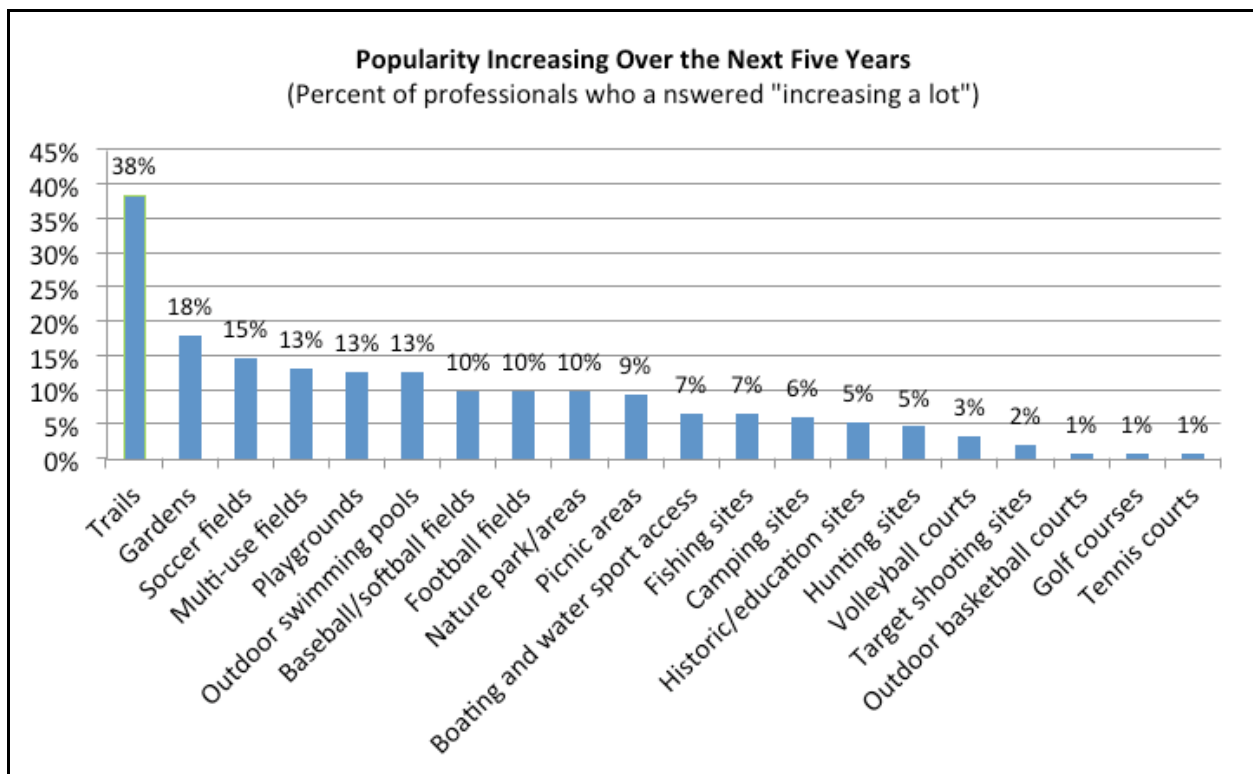


Table 17 – Activity Increases Next Five Years

Popularity Among Children

Playgrounds, water parks/swimming pools and aquatic centers are the most popular facilities among Missouri pre-school children, ages 0 to 5 (Table 18).

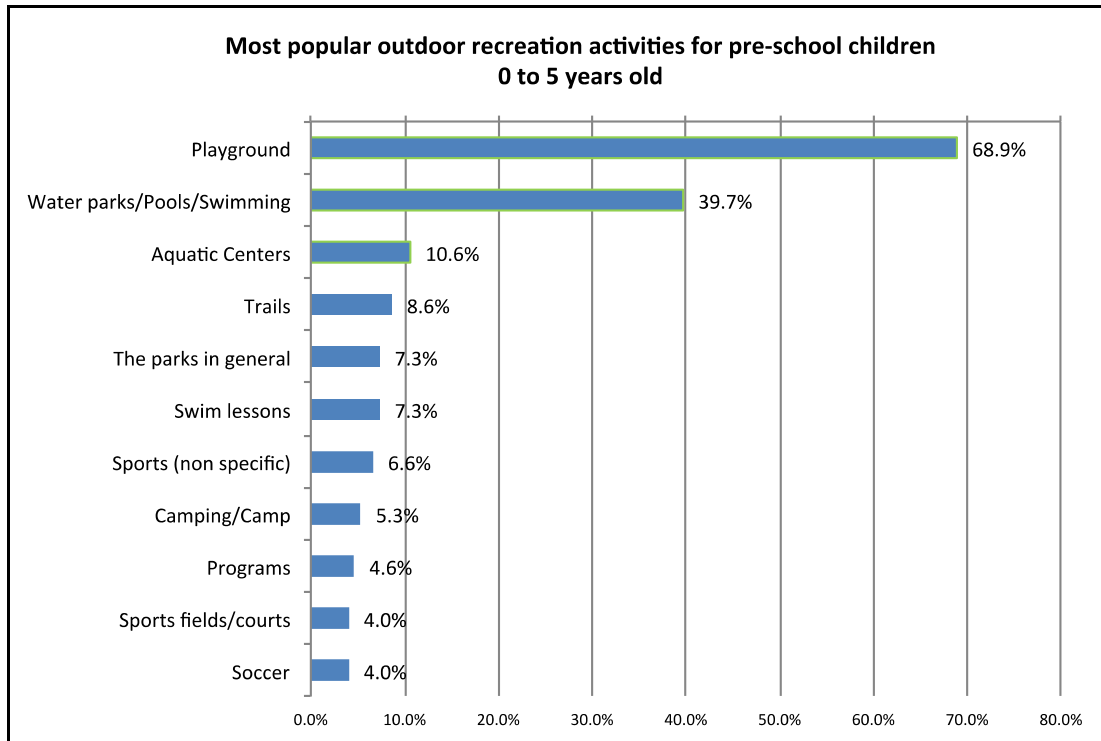


Table 18 - Popular Activities for Preschoolers

Children 6 to 12 years old are most likely to use **playgrounds, water parks/swimming pools, sports fields/courts, sports facilities and camping sites** (Table 19).

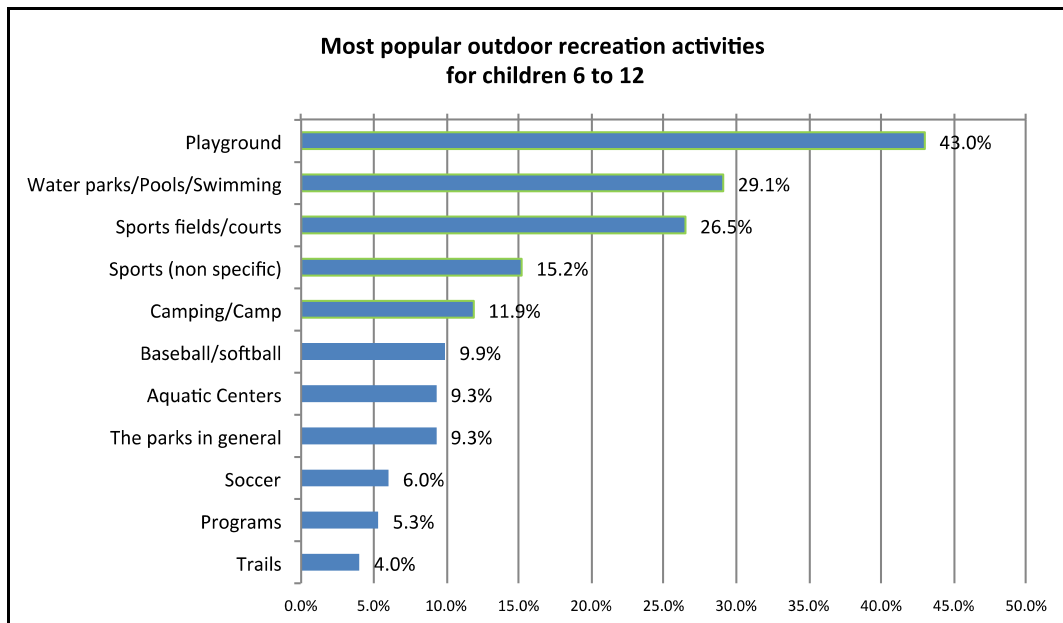


Table 19 - Popular Activities for Ages 6-12

Recognizing the strong benefit of parks and playgrounds, a key 2010 White House Task Force on Obesity report recommendation was to “increase the number of safe and accessible parks and playgrounds, particularly in underserved and low-income communities.”⁴⁴

Playgrounds play a critical role in the level of physical activity for the youngest age groups, according to the White House report. “Parks and playgrounds in a community provide opportunities to run and play and increase unstructured physical activity. If children can easily access safe parks and playgrounds in good repair, they are more likely to engage in recreational physical activity.”

In the absence of accessible playgrounds, parks and recreation facilities, obesity rates climb, according to the report.

“Children with low neighborhood amenities or those lacking neighborhood access to sidewalks or walking paths, parks or playgrounds, or recreation or community centers had 20 to 45% higher odds of becoming obese or overweight as compared to children who had access to these amenities.”⁴⁴

Popularity Among Adolescents

Among Missouri adolescents ages 13 to 16, the most popular facilities are **sports fields/courts**, **water parks/swimming pools**, **skate/skateboarding parks**, **sports facilities** and **baseball/softball fields** (Table 20).

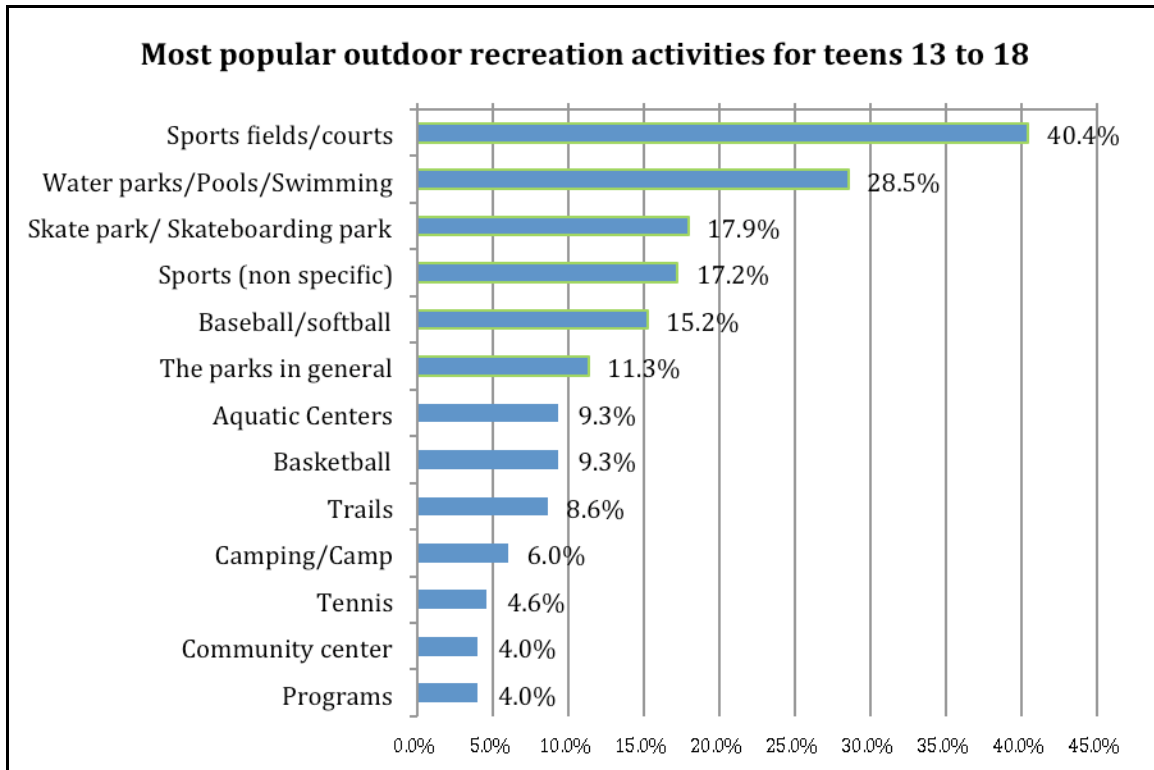


Table 20 - Popular Activities for Teens

The popularity of skateboarding in Missouri reflects the staggering growth of skateboarding as an outdoor sport nationwide, which recreation professionals should consider when planning for teens.

In 2010, skateboarding climbed to America's number three favorite sport by frequency of participation among *all* Americans, ages six and older, according to The Outdoor Foundation. The study reported 61.3 average outings per skateboarder, for a total of 329 million outings nationwide in 2010.³

Popularity Among Young Adults

Young adults ages 19 to 34 most often use **trails, sports fields/courts, baseball/softball fields, sports facilities, water parks/swimming pools and parks** (Table 21).

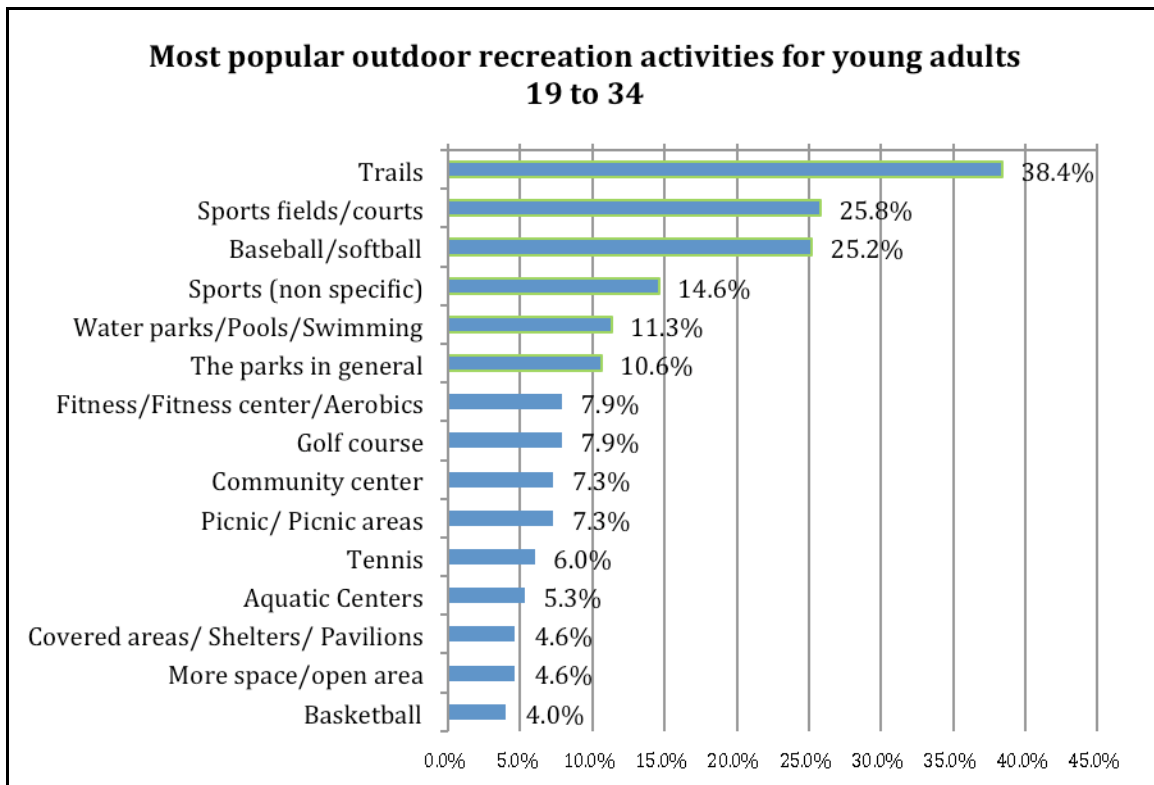


Table 21 - Popular Activities for Young Adults

Popularity Among Adults

Missouri adults ages 35 to 54 use **trails** more than any other facility. Adults also prefer **picnic areas, golf courses, baseball/softball fields, community centers, walking/hiking paths, water parks/swimming pools, fitness centers, sports fields/courts** and **parks** (Table 22).

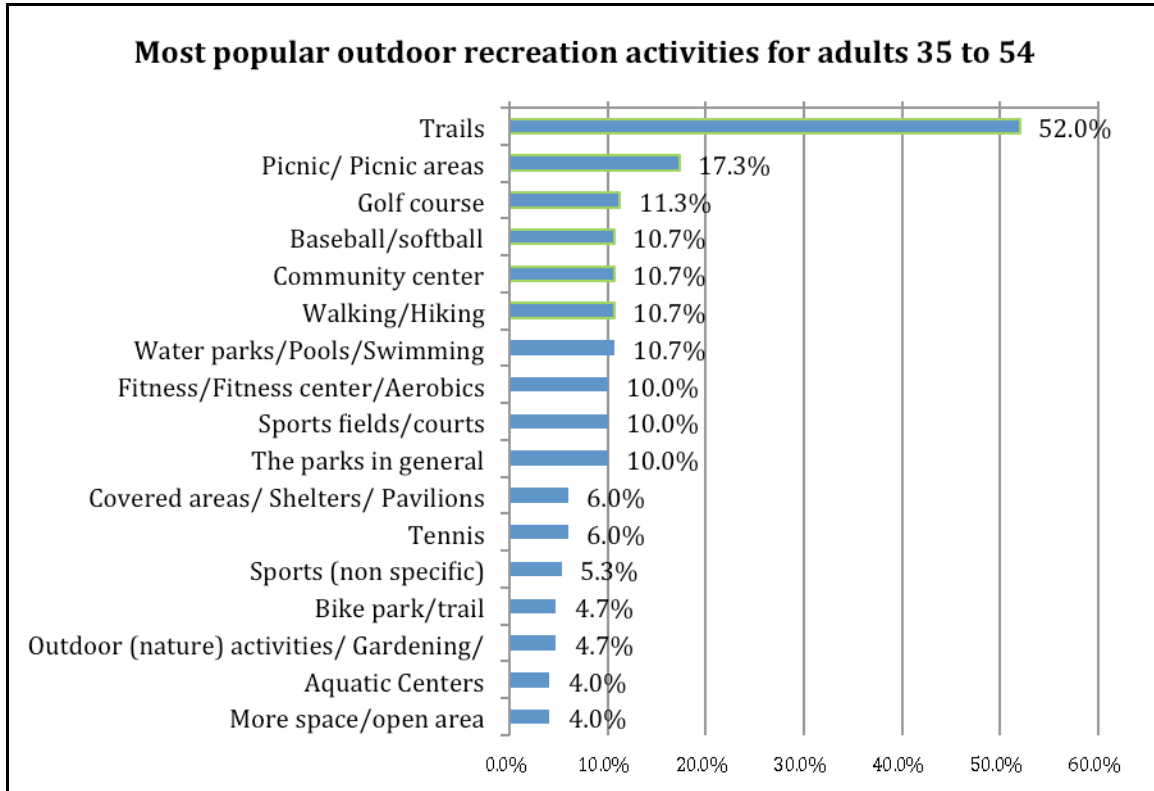


Table 22 - Popular Activities Adults 35-54

Popularity Among Seniors

Seniors also use **trails** most often, and also enjoy **picnic areas, golf courses, water parks/swimming pools, community centers, walking/hiking paths** and **parks**. National research shows that walking for pleasure or exercise is a popular activity for older adults (Table 23).³¹

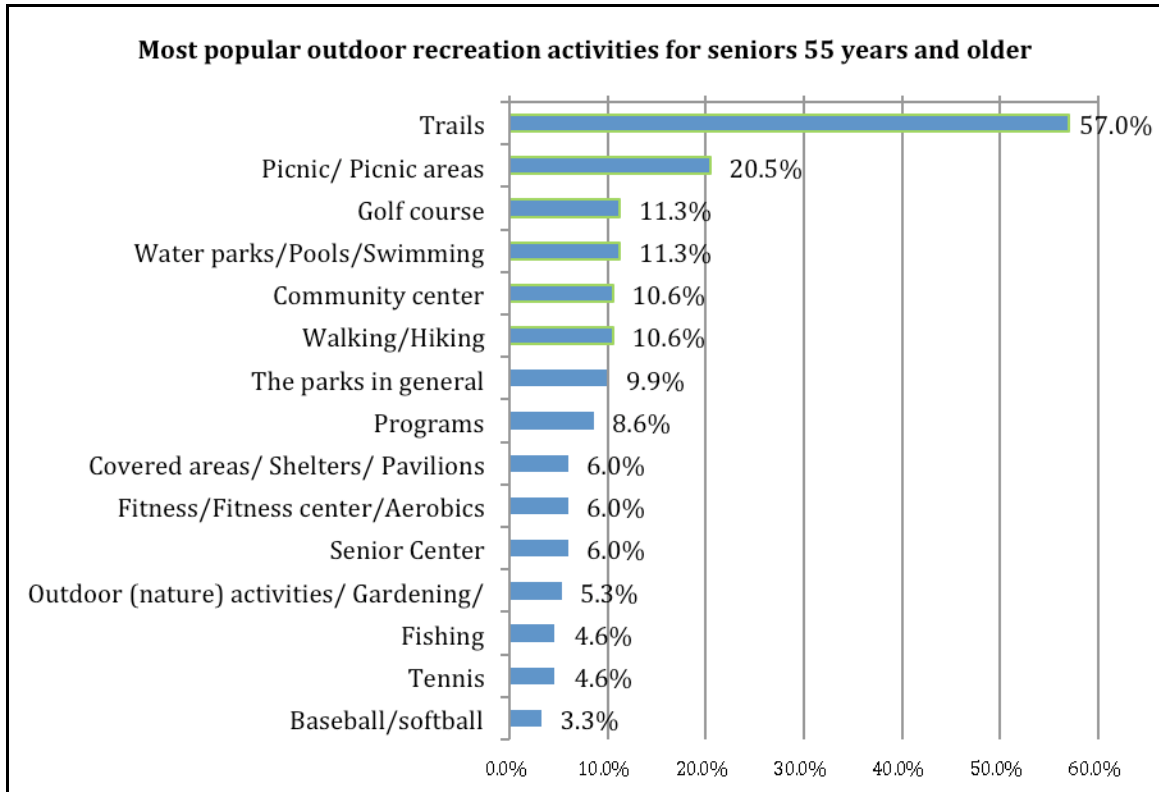


Table 23 - Popular Activities for Seniors

Popularity Among Families

Trails also are the most popular outdoor recreation facility among Missouri families, followed by **playgrounds, parks, sports fields and courts, water parks and swimming pools** and **picnic areas** (Table 24).

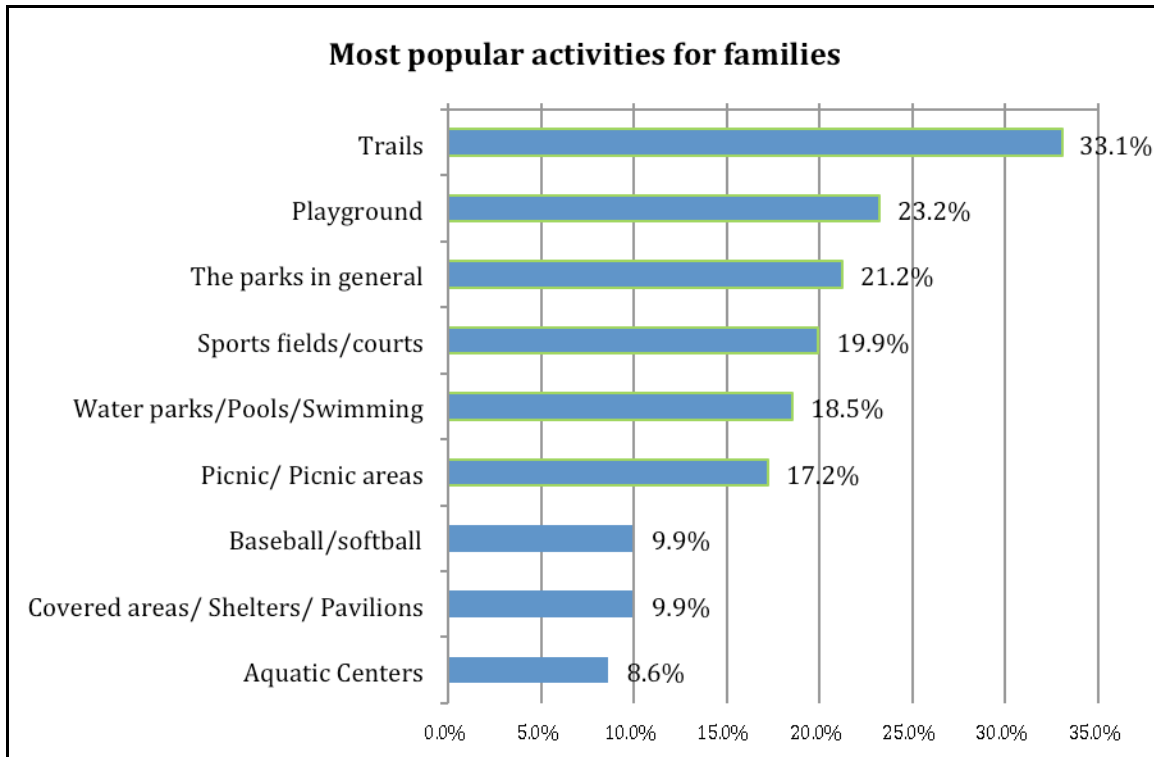


Table 24 - Popular Activities for Families

Developing facilities and programs that appeal to families is essential to nurturing the next generation of outdoor enthusiasts. For many, getting outside for the first time simply takes a little encouragement from family and friends. More than half of those between 6 and 24 years old became involved in outdoor activities for the first time because their family or friends already participated.³

Other Popular Activities/Facilities

When asked about outdoor recreation facilities/activities besides the traditional ones, Missouri outdoor recreation professionals say they expect to see **disk golf** and **trails** increase in popularity over the next five years. They also expect to see more interest in **skate** and **skateboarding parks, soccer, dog parks** and **bike parks/trails**.

Although the numbers are low, at least two percent predict a decline in **baseball/softball, golf, volleyball, field sports** and **tennis**.

Demand & Supply

According to the survey, **playgrounds** are the most abundant outdoor recreation facility in Missouri, provided by every park, city and agency surveyed.

More than 90 percent of Missouri's outdoor recreation providers also offer **picnic areas, trails, baseball/softball fields and multi-use fields**. More than 80 percent offer **tennis courts, soccer fields, outdoor basketball courts, outdoor swimming pools, fishing sites and nature park/areas, gardens and volleyball courts**.

How well is Missouri meeting the demand for outdoor recreation facilities?

Demand exceeds supply for the most popular outdoor recreation facilities in Missouri – **trails, playgrounds and multi-use fields**. At least a third of Missouri professionals say that demand for trails is *much greater* than the supply.

Facilities or programs that are not available but in demand in some areas include **trails and bike parks, nature and botanical gardens, dog parks, skate and skateboarding parks, disc golf/Frisbee and open space** (Table 25).

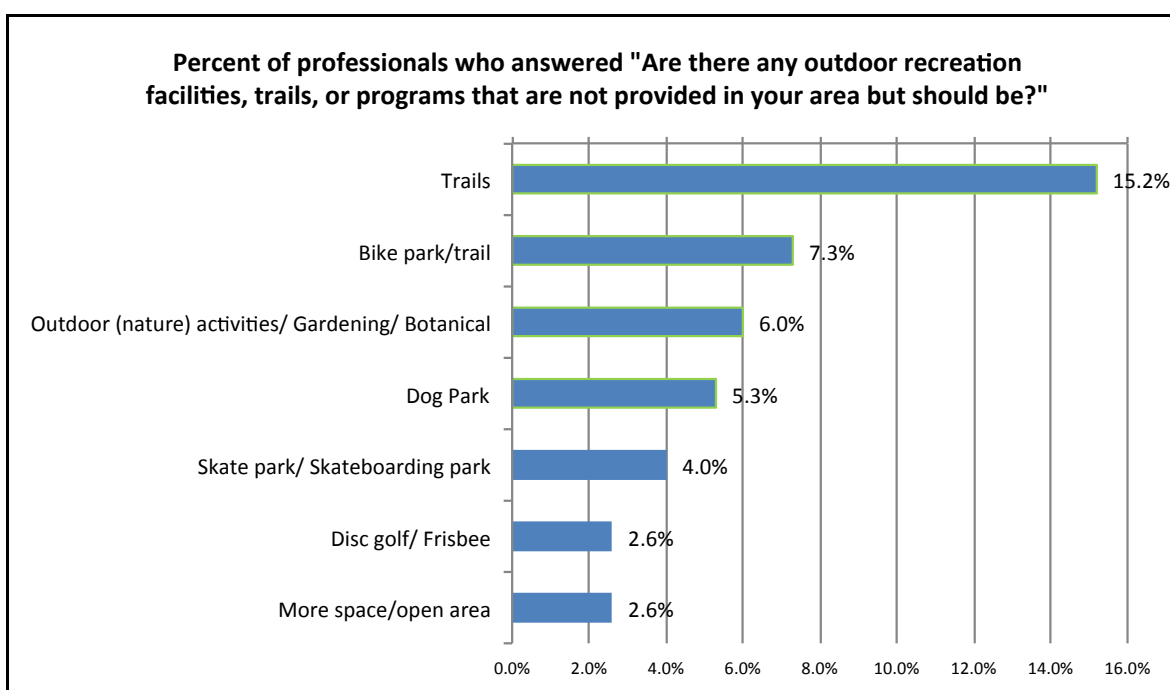


Table 25 - Activities Not Available but In-Demand

Demand also outstrips supply for **picnic areas, soccer fields, baseball/softball fields, gardens, nature parks, outdoor swimming pools, football fields, boating and water sport access sites, camping sites, outdoor basketball courts, historic sites, hunting sites, tennis courts and target shooting sites**.

Golf courses and volleyball courts are the only facilities in which supply currently exceeds demand.

Urban vs. Rural Demand

Picnic areas, outdoor swimming pools and tennis courts are in greater demand in urban areas, while **boating and water sport access sites** are in greater demand in rural areas.

Meeting Demand by Age Groups

Missouri's outdoor recreation professionals are meeting the needs of children ages 6 to 12 better than any other age group. Young and middle age adults and preschool children also are being served reasonably well, according to the professionals.

Teenagers have the greatest unmet outdoor recreation needs of all age groups in Missouri. More than one in ten professionals says that the needs of teenagers are not being met *at all*. Professionals in rural areas report less success than their urban peers in meeting the outdoor recreation needs of children 6 to 12-year-olds and middle-age adults (Table 26).

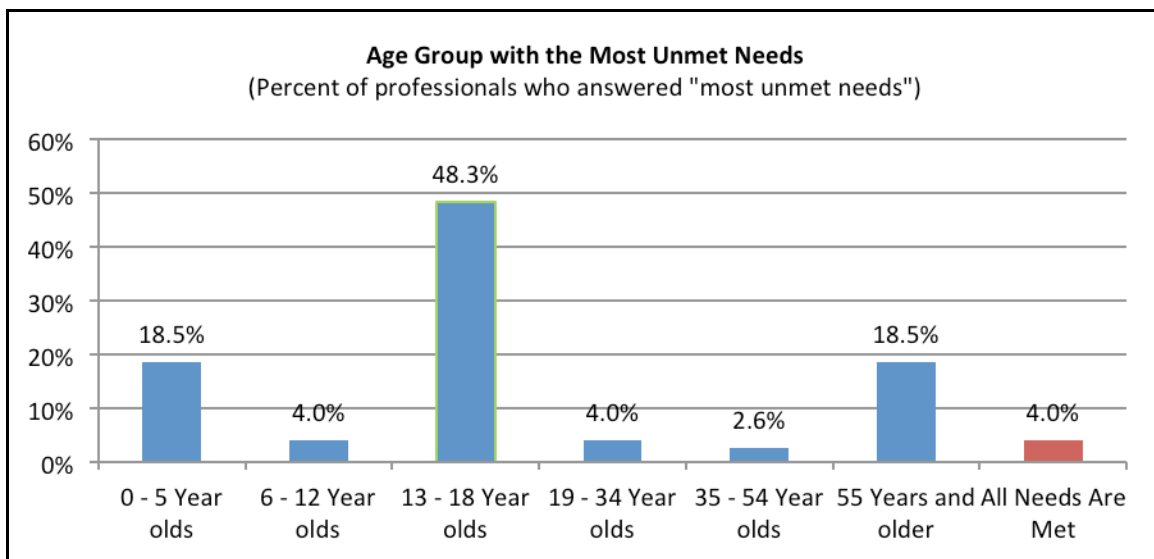


Table 26 - Most Unmet Needs by Age Group

Professionals find it difficult to interest teens in outdoor recreation and to keep them involved. They report a lack of age-specific programs, activities, equipment and facilities.

These findings in Missouri correlate with national studies, which show that participation in outdoor activities declines with age. A 2010 study of outdoor participation rates, by The Outdoor Foundation, shows that “participation reached a high of 62 percent among the youngest surveyed and a low of 38 percent among the oldest.”³

Youth nationwide are not participating in enough outdoor activity according to The Outdoor Foundation. Among youth who consider themselves outdoor participants, 37 percent take part in an outdoor activity less than twice a month.

Multiple studies show that time spent outdoors is the strongest correlate of a child's physical activity, so it is not surprising that most teens also are not meeting basic recommendations for physical activity.²⁹

According to the White House Task Force on Childhood Obesity, fewer than one in five high school students meets the current recommendation of 60 minutes of daily physical activity. Yet adolescents spend more than seven hours a day watching television, DVDs and movies, or using

a computer or a mobile device.⁴⁴

There are many barriers to outdoor physical activity among teens, including time at school, technology and a preference to hang out with friends. More in-depth study is needed to understand what motivates those teens who do participate in outdoor recreation. This insight, along with an understanding of the barriers to participation, can help guide planning and programming.

Besides improving program quality, efforts need to be made to create a positive buzz about program offerings for both parents and adolescents (e.g., use of peer recruiters and engaging advertising, including social media).⁴⁷

Partnering with schools and other government agencies to reach teens through environmental education and after-school programs is another important tactic. Children's level of physical activity increases when they participate in environmental education programs that promote outdoor activity.⁴⁴ One such program in Missouri is the WOW (Wonders of Wildlife) National Outdoor Recreation and Conservation School, designed to teach participants how to enjoy a wide range of outdoor recreation activities while practicing personal safety and outdoor responsibility.

Improvements

Which outdoor recreation facility types need the most improvement?

According to the survey of professionals, the Missouri outdoor recreation facilities most in need of improvement are **camping sites, multi-use fields, trails, outdoor basketball courts and historic/education sites. Boating and water sport access sites, playgrounds, nature parks/areas and tennis courts** also need improvement.

Professionals rank **multi-use fields** most often as having an *extreme* need of improvement, followed by **camping sites, boating and water sport access sites, gardens and tennis.**

Between 15 and 20 percent of professionals say **outdoor basketball courts, outdoor swimming pools, historic sites, soccer fields, football fields, playgrounds, target shooting sites, fishing site and nature parks/areas** are in extreme need of improvement. Other facility types needing improvement include **skate and skateboarding parks, dog parks and sports fields/courts.**

Golf courses and hunting sites need the least amount of improvement.

Support Components

How adequate are support components such as transportation, restrooms, drinking water, and disability access?

Public transportation to outdoor recreation facilities and activities is the least adequate support component measured. More than a third of professionals rate transportation "not at all adequate."

⁴⁷ Caldwell, Witt. The Rationale for Recreation Services for Youth: An Evidenced Based Approach. National Recreation and Parks Association, 2010.

Drinking water is rated the most adequate support component followed by disability access and public restrooms.

In rural areas, public transportation to facilities, restrooms and disability accessibility are significantly less adequate.

Priorities

What are the greatest outdoor recreation priorities in Missouri?

Educating the public and officials about the values and benefits of outdoor recreation is the highest priority of outdoor recreation professionals. They ranked the need for public education about outdoor recreation at 4.22 out of 5. This is similar to findings of the 2009 MPRS Study.

The age group with the greatest unmet need is the 13- to 18-year-olds and the most in-demand facilities for teens are sports fields, water parks and skate parks.

Other high priorities include expanding, updating and maintaining existing facilities; funding for maintenance and operations; and overall funding.

Professionals also ranked communications and collaboration among partners, conservation/preservation efforts, and marketing and public relations above the midpoint.

Urban professionals rate public education and conservation/preservation efforts higher as priorities than rural professionals.

Obstacles

What obstacles prevent improvements in Missouri's outdoor recreation?

More than one in five professionals say the lack of a consistent funding system and the availability of future parkland are *very large* obstacles to improving outdoor recreation in Missouri.

Overall, professionals say that the largest obstacles are ignorance and lack of education on the benefits/values of outdoor recreation; low priority support for recreation; the lack of a consistent funding system; and the availability of land for future parks.

More than half of professionals say that local crime and liability issues are not obstacles at all.

Regional Obstacles

Rural professionals are more concerned about the lack of a consistent funding system and the availability of future park land as compared to urban professionals. Urban professionals are more concerned about crime affecting outdoor recreation as compared to rural professionals.

Critical Issues

What critical issues are impacting outdoor recreation in Missouri?

Funding is by far the most critical issue affecting outdoor recreation in Missouri, mentioned by more than three-fourths of the professionals surveyed. The next most pressing issues are available space for future parkland, upkeep/restoration/maintenance and awareness/education.

Summary of Findings

The survey of outdoor recreation professionals answered important questions regarding outdoor recreation in Missouri and led to action items that are outlined later in this report.

Q. Which types of outdoor recreation are most popular? Which need the most improvement?

- Trails, playgrounds and multi-use fields in Missouri are in the greatest demand, are expected to increase in popularity over the next five years, and need the most improvement.
- Picnic areas, gardens and soccer fields are becoming more popular but do not need much improvement.
- Camping sites, outdoor basketball courts, historic/education sites, boating and water sport access sites, tennis courts and target shooting sites need the most improvement but are not as popular as other facilities.
- Skate parks and dog parks are becoming more popular and need improvement. Soccer fields are increasing in popularity faster than baseball/softball fields, football fields, outdoor basketball courts, golf courses, tennis courts and target shooting sites.
- Hunting sites, golf courses, volleyball courts, target shooting sites, tennis courts, outdoor basketball courts and fishing sites are not in high demand as compared to other outdoor recreation facilities.

Q. How available are various types of outdoor recreation facilities?

- Trails, multi-use fields and playgrounds are the most popular facilities and present the greatest unmet demand, now and in the future.
- Demand for picnic areas, gardens, soccer fields and nature parks/areas also is higher than supply and is expected to increase over the next five years.
- Football fields and baseball/softball fields also rank among the top ten facilities in unmet demand but popularity is not expected to increase as much.

Q. How well are we meeting the needs of various age groups?

- Teenagers have the greatest unmet needs, and professionals struggle to get them interested and keep them involved.
- Sports fields, water parks/pools and skateboard parks are the most popular activities among teenagers.
- Trails are by far the most popular outdoor recreation facility among adults, increasing in popularity as residents age.

Q. How adequate are support components such as transportation, restrooms, drinking water, and disability access?

- Public transportation to outdoor recreation is inadequate.
- Disability access, drinking water, restrooms and parking are well supplied.

Q. What are the greatest outdoor recreation priorities?

- Education and funding for maintenance and operations are the most important priorities among outdoor recreation professionals in Missouri.

Q. What obstacles prevent improvements in outdoor recreation?

- Lack of a consistent funding system, availability of future parkland, lack of education, and low priority/support for recreation are the greatest obstacles to improving outdoor recreation in Missouri.
- Crime and safety are not considered major issues affecting outdoor recreation in Missouri.

Q. What critical issues are impacting outdoor recreation?

- Future funding and obstacles to funding are the most critical issues facing outdoor recreation professionals, especially among rural professionals.

Detailed survey results including the survey tool, methodology, demographics and a complete report with tables are included in Appendix D.

Missouri Trail Inventory 2011

Missouri is a state rich in trails, from paths linking neighborhoods with community parks to the 237-mile Katy Trail State Park, the longest rails-to-trails project in the nation.

Trails contribute immensely to both the health and economic vitality of a community. As a multi-use resource, trails accommodate a wide variety of activities, and they appeal to youth and adults alike.

In Missouri, our studies show that trails are increasing in popularity more than any other outdoor recreation facility.¹¹ Trails are an important community asset and a gateway to other outdoor activities.

For several years, Missouri outdoor recreation professionals have envisioned a trail alliance, a group of organizations working together to promote the state's trail resources and provide for better access and use of trails. In support of that vision, Missouri State Parks decided to conduct an inventory of trails as part of the 2013-2017 Missouri SCORP.

More than 400 organizations around the state were invited to complete an online survey. Responses came from 100 of the 115 counties in Missouri, representing 354 zip codes and 300 cities, parks, agencies and conservation areas.

Nearly 1,000 Missouri trails were counted, spanning a distance of more than 3,000 miles. Although the inventory does not yet represent all trails in Missouri, it does provide some interesting statistics:

- All of the trails (except for two water trails) are designed for hiking and walking (947 trails, 1,302 trailheads, 3,082 miles);
- About half allow biking (457 trails, 2,228 miles);
- More than one-fourth allow backpacking (255 trails, 1,131 miles);
- 134 equestrian trails provide 1,439 miles of trails for horse lovers;
- Five trails have ATV/ORV access (112 miles);
- Sixteen trails have boardwalks;
- More than half have a natural surface (508 trails, 2,129 miles);
- A third have an asphalt surface (312 trails, 638 miles);
- 151 trails (16%) have a gravel surface;
- One fourth are ADA compliant and one in ten has interpretive signage;
- Half are located within parks (492 trails, 1,852 miles);
- 101 trails share jurisdiction with other organizations.

Methodology

Synergy/JPA/PRI conducted the trail inventory in July/August 2011 using no-cost online tools including Google Documents online survey and database programs.

The goal of the trail inventory was to establish a database of trail information that could be easily accessed, maintained and expanded for use by trail planners and ultimately, the public. Management-level professionals at 402 organizations (cities, towns, counties, parks, trail and outdoor recreation associations, state and federal agencies, etc.) were asked to participate. To avoid overlap, the trail survey invitation was sent to a single contact at each organization. Up to three reminder emails and three telephone calls were made to encourage response.

Data collected includes trail names, organizations that own or manage them, geographic/GPS locations, trail length, type of surface, allowed uses and other trail properties. To assist organizations that managed multiple trails, the team provided an Excel spreadsheet form and then imported their data into the database.

Survey Results

The survey response rate was about forty percent, with 102 organizations entering trail data (58 respondents did not own or manage trails). As trail providers completed the online survey, the data automatically populated a spreadsheet database, which can be sorted and analyzed in a variety of ways.

The collected data was cleaned for consistency and the team used a geomapping app to add GPS data when it wasn't supplied. Google Maps and Google Charts were used to create an online display of Missouri trail data, currently hosted at <http://www.pragmatic-research.com/dnr-trail-inventory/maptest.html>.

Searchable filters allow the user to view the trail data on a map and sort it in various ways such as by trail surface, allowed activities, interpretive elements, ADA compliance, shared jurisdiction, location within a park, owner organization, and by city, county and zip code. The trail data also can be combined with U.S. Census Bureau and Centers for Disease Control information for demographic and community health correlations.

Trails can be added at any time via the online survey at http://bit.ly/DNR_Trail_Inventory. As every new set of data is entered, the Missouri Trail Inventory becomes a more useful, living tool for communities, planners and trail enthusiasts.

Themes, Emerging Issues & Trends

What trends and issues will impact the future of outdoor recreation in Missouri?

In preparing the 2013-2018 SCORP, the primary Missouri SCORP research studies were reviewed to spot future growth trends as well as gaps in outdoor recreation specific to Missouri. That information was then compared with national research and literature on outdoor recreation to broaden and confirm the perspective.

Six important themes and issues emerged:

- Sociodemographic Shifts
- Funding and Economics
- Demand for Trails and Walkable Communities
- Educating the Public on the value and benefits of parks and recreation
- Health and Wellness
- Youth, Technology and Nature Deficit.

In addition to exploring these themes and issues, this SCORP details trends in participation as well as the obstacles that affect the future of outdoor recreation in Missouri.

Themes and Emerging Issues

Sociodemographic Shifts

Missouri's demographic trends present ongoing challenges for managers and planners, who must meet the needs of a changing and diverse population. This impacts the location and types of facilities to be developed and the types of programs to be offered.

As described in detail in the Background section, the state of Missouri overall is growing more slowly than the national average. Yet like much of the nation, Missouri is becoming more urban. The population growth is fastest in metropolitan regions and is on the decline in agricultural areas.

At the same time, the population of Missouri is increasingly becoming overweight, lower income, older and more ethnically diverse, trends that present planning challenges.

Currently, more than 30 percent of Missourians are obese, and more than 15 percent live below the poverty level. Both obesity and poverty correlate with low levels of exercise in some parts of the state, particularly in Southeast Missouri where obesity overall is the highest⁴⁸ and poverty in 2008 was more than 19% compared to 13.5%.⁴⁸

Aging is another striking demographic shift in Missouri, a state whose population is growing mostly through natural change rather than in-migration and whose residents are living longer. In

⁴⁸ Domazlicky, Bruce. Poverty in Southeast Missouri. Center for Economic & Business Research. October 2010.

1950, only one in ten Missourians was 65 or older. By 2030, the percentage of seniors 65 and older in Missouri will double to one in five.⁸

Seniors today are more active than ever, yet Missouri recreation professionals rank them second after teens in unmet outdoor recreation needs.¹¹ Unless programs and facilities are provided to meet the needs of seniors, that unmet demand is likely to grow.

Missouri's ethnic populations also present new challenges. Minority populations have grown three times as fast as the state's general population over the last decade, with a Hispanic growth rate of 79 percent during that time.⁸



Seniors birdwatching (U.S. Fish & Wildlife)

Minorities tend to participate in outdoor recreation at a lower rate than white residents, which impacts not only their own health but also decisions regarding future outdoor recreation development and funding. The National Park Service, for example, considers the issue of underserved minority populations in parks a critical one, since it affects how parks are developed, visited and valued, and ultimately, how the public will support future funding for parks and outdoor recreation.⁹

Funding and Economics – Doing More with Less

The economy is on everyone's mind today, including outdoor recreation professionals and residents. The Missouri SCORP studies show that professionals¹¹ and residents¹⁶ agree – lack of a stable funding source is the number one critical issue affecting outdoor recreation in Missouri. Missourians also believe that facility upkeep, more locations and the availability of future park land, all of which require funding, are important issues.

More than half of Missouri residents say that funding for parks, greenways and conservation areas should be budget priorities, even in difficult times. More than nine out of ten want tax dollars spent on parks and recreation services for their children, and more than half say that educating their children about the outdoors should be a higher priority in the future. Nearly 90 percent of Missourians believe local communities have a responsibility to protect open space.¹⁶

Outdoor recreation and open space require funding, but they also can stimulate local economies. Trail systems, in particular, contribute to the economic vitality of the community while cost-effectively meeting a wide range of recreation needs: from hiking, trail running and bicycling to nature study and bird watching. Trails and multi-use fields are increasingly popular among Missouri communities and residents because they serve those multiple needs, ultimately allowing communities to “do more with less.”

Studies show that trails enhance property values, reduce transportation congestion and road maintenance, lower health care costs, and stimulate the economy through tourism, retail and sales and taxes.⁴⁹ Construction of trails, bike lanes and sidewalks alone can result in nine to 11 jobs per \$1 million of spending.⁵⁰

Parks and greenspace can be economic drivers through tourism, even exceeding commercial attractions. Nationally, for example, 150 million people visit the top 20 theme parks annually. But that number pales alongside the 912 million visits to federal parks and lands, the 730 million visits to state parks, and the countless millions of visits to regional, county and local parks and beaches, by people who also spend money in the local communities.⁵¹

Studies show the outdoor recreation industry contributes \$730 billion to the national economy each year through tourism, retail sales, services, jobs and taxes, including nearly \$24 billion in the seven-state census region to which Missouri belongs.³⁵

One way that communities can demonstrate their parks are economic engines is to enumerate the programs, festivals, events and facilities operated or co-sponsored by the park and recreation department, then compare them to similar activities sponsored by local nonprofit and commercial organizations. In most communities, parks attract many more visitors than commercial attractions, and are central to tourism.⁵¹

Demand for Trails and Walkable Communities

Since the 1950s, America's communities and streets have been designed and built for cars, but that perspective is shifting due to changing demographics and rising energy costs. Missouri leaders and planners recognize a need for transportation options that meet the needs of all citizens, regardless of ability, age or income level.

The Missouri Livable Streets initiative builds support around the state for livable streets, with a focus on providing transportation corridors for all users whether they drive, bike, walk or use assistive devices such as wheelchairs.⁵² This public-private partnership of the University of Missouri Extension, Missouri Department of Transportation and 12 other organizations has helped 14 communities develop Livable Streets policies and resolutions since its founding in 2004.

Trails and walkable communities can meet a variety of needs while also encouraging walking, running and bicycling for recreation. Many popular outdoor activities – running, jogging, bicycling – can take place on trails, sidewalks and walkable streets. Americans with trails, walking and bike routes near their homes have outdoor recreation participation rates 20 to 25 percent higher than those without.³

⁴⁹ Economic Benefits of Trails. American Hiking Society, 2001.

⁵⁰ Garrett-Peltier, Heidi. Pedestrian and Bicycle Infrastructure: A National Study of Employment Impacts. Political Economy Research Institute, University of Massachusetts, Amherst. June 2011.

⁵¹ Crompton, John L. Measuring the Economic Impact of Park and Recreation Services. Research Series. National Recreation and Park Association, 2010.

⁵² Missouri Livable Streets Design Guidelines. University of Missouri Extension. August 2011.

Our own studies show that trails are the most popular type of outdoor recreation facility in Missouri and the one that residents most want to see increased. Missourians would like to see more walking and biking trails, and three-fourths of residents who don't have sidewalks say they would use them.¹⁶

Currently only two percent of Missourians walk to work and 0.2 percent ride their bikes, as compared to 2.9 percent of Americans who walk and 0.6 percent who bike. Missouri, in fact, ranks 40th among the states in walking and 44th in bicycling to work. But efforts in Kansas City, St. Louis and other Missouri communities offer hope for future increases in bike/ped transportation. Although Kansas City is 33rd among the largest 50 U.S. cities in rates of walking to work and 44th in bicycling, it ranks 12th in the nation in per capita funding for bicycle/pedestrian transportation and in the top third for policy and education/encouragement.⁵³

Although biking and walking rates are lower in rural areas than overall national rates, bicycle and pedestrian infrastructure is still important to rural residents. According to a report by the Rails-to-Trails Conservancy, the share of trips made on foot or by bike in “rural cores” of 2,500 to 50,000 residents is only 20 percent lower than the rate for larger urban cores. For work-related trips, rural areas fall in line with overall national biking- and walking-to-work rates.⁵⁴

Public transportation to outdoor recreation facilities is a major issue throughout Missouri, both rural and urban. Few state parks and outdoor recreation facilities in rural areas can be accessed through public transportation. Many urban neighborhoods in Missouri lack parks and connections to nature within walking distance.

A University of Chicago study found that communities with lower incomes, higher poverty rates, and higher proportions of racial and ethnic minorities had the fewest opportunities for community-level physical activity.⁵⁵ Communities can find space for urban parks through good planning and creative thinking. In other regions of the country, new parks have sprouted in unlikely places – abandoned rail lines, parking lots, rooftops, reservoirs and landfills.

In Missouri, parks and recreation professionals expressed a desire to inventory all of the trails in the state. Therefore, as part of this SCORP, a statewide inventory of trails was conducted to identify available resources and provide a base of knowledge for determining gaps. The trail inventory is ongoing and not yet comprehensive, but the first effort identified nearly 1,000 trails stretching more than 3,000 miles throughout Missouri. The ultimate goal is to develop a user friendly, web based, interactive trail inventory and trip planning tool.

Education – the Benefits and Value of Parks and Recreation

Recreation professionals in Missouri put education at the top of their list of priorities.¹¹ They believe that residents need to understand the benefits and value of outdoor recreation if they are to become more active and more supportive of future funding for outdoor recreation.

⁵³ Bicycling and Walking in the United States 2012: A Benchmarking Report. Alliance for Biking & Walking.

⁵⁴ Active Transportation Beyond Urban Centers. Rails-to-Trails Conservancy. 2012.

⁵⁵ Revitalizing City Communities with Parks: How can cities adapt to a changing climate? Planet Forward on PBS, 2011.

Unfortunately, residents don't always link the benefits of recreation facilities with specific funding needs. A study conducted for SCORP by the Missouri Park & Recreation Association showed that residents valued neighborhood parks highly when they bought a home, but ranked trails and connectors relatively low in funding importance.²⁷

Recreation professionals understand that educating the public and elected officials about the health and environmental benefits of outdoor recreation is important to developing, sustaining and increasing support. For example, Missouri residents overwhelmingly (95%) believe that spending time outdoors leads to happier and healthier lives; that parks, recreation and open space are important to health (90%); and that local communities have a responsibility to preserve and maintain open space (88%). Education can link these important public values with the need to support parks and open space.²⁷

Outdoor recreation must be recognized, stimulated and supported by the public and public officials, in order to thrive. The Missouri State Parks "Parks 20/20: a Strategic Plan" addresses this issue, outlining strategies to build public and political support for funding, strengthen partnerships, educate legislators, increase visibility and engage the public in improving the state park system.²³

St. Louis County, for example, recently proposed closing 23 county parks and eliminating park rangers, a projected savings of \$4.3 million in the 2012 budget. But when hundreds of residents protested, the proposed cuts were withdrawn. The incident highlighted the benefits and value that residents place on their investment in parks. The Missouri Parks and Recreation Association launched the "Did You Know" campaign in 2012 to educate outdoor recreation users and turn them into knowledgeable advocates.

Health & Wellness

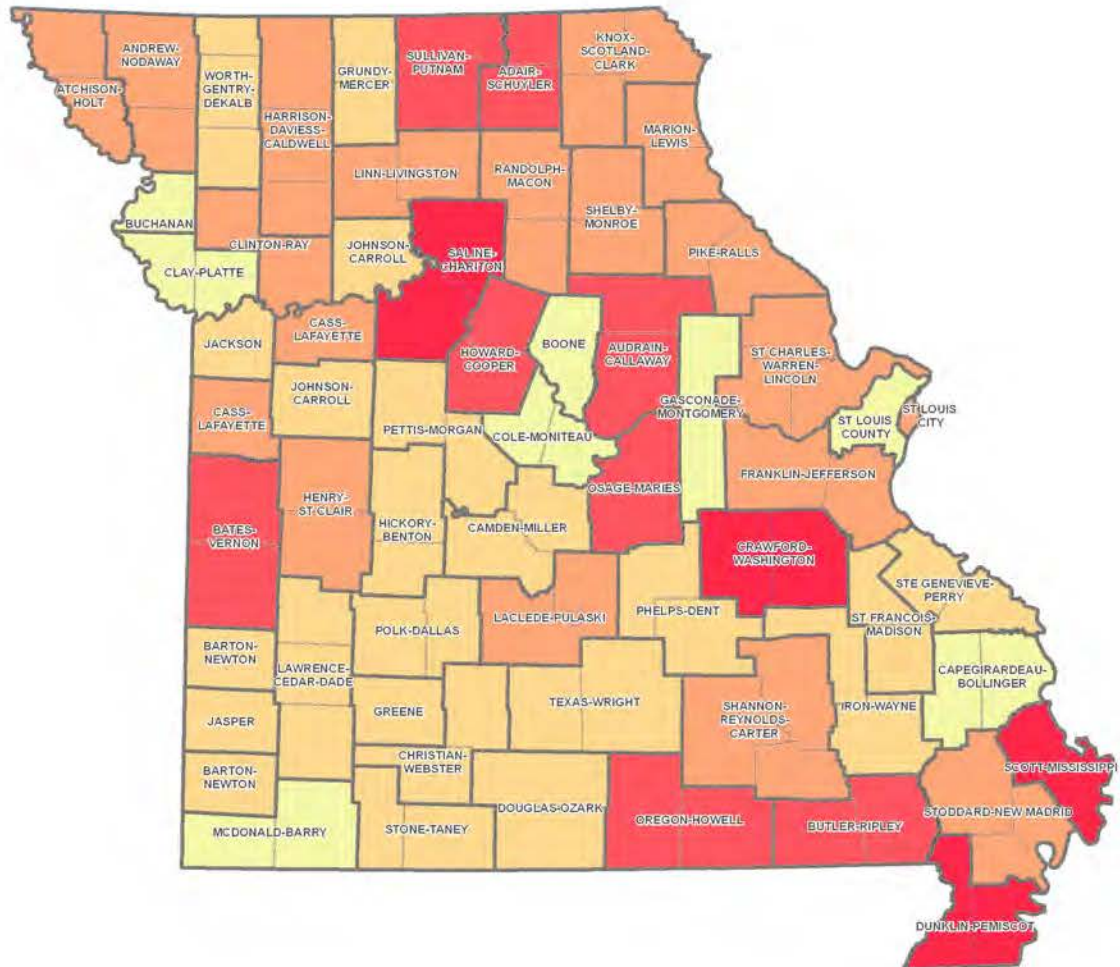
Outdoor recreation can have a powerful impact on both an individual's and a community's health, an important consideration for Missouri, the 11th most obese state in the country. More than two-thirds of Missourians statewide are overweight and 30 percent are obese. In some counties, the average obesity level reaches nearly 40 percent. Thirteen percent of children statewide are considered obese.⁶

Rigorous studies over the past decade have objectively measured data such as crime statistics, blood pressure, neurocognitive tests and immune system function to show that people living in neighborhoods with more open space, parks and trees have better health, even when the economic advantages of "green" neighborhoods are taken into account.³⁰

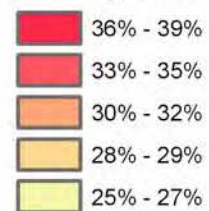
Some studies have established links between land development patterns and obesity. Sprawling developments and communities without sidewalks, parks and communal open space may correlate with high levels of obesity while parks, trees, and open space may contribute to better health as well as cleaner air and water.⁵⁶ These patterns emerge in some Missouri counties when comparing maps of obesity rates and lack of physical activity (Table 27, Table 28).

⁵⁶ Americans Outdoors: Recreation and Conservation Patterns, Trends, and Emerging Issues. Resources For The Future.

Obesity Rate, 2007



Obesity Rate



Source: BRFSS Missouri County Level Study 2007
 Obese (> 30 BMI)
 Derived by calculating BMI using responses the following questions:
 About how much do you weigh without shoes?
 About how tall are you without shoes?
 Map created by Center for Applied Research and Environmental Systems, 2009.

Table 27 - Missouri Obesity Rate 2007

[illegible]

Table 28 - Lack of Leisure Time 2007

Some of Missouri's healthiest counties are in rapidly growing metropolitan areas, which tend to have more parks and rank the highest in activity levels, various other health factors, and health outcomes. These healthy areas include most of the state's ten fastest growing counties.

Many rural areas and older city centers, however, are much less healthy. The city of St. Louis ranks 105th among 114 Missouri counties in terms of health outcomes and it ranks 114th, dead last in the state, for various health factors. Meanwhile, neighboring St. Louis County ranks 18th best for health outcomes and 4th best for health factors.⁵⁷

St. Louis University researchers found that 31 percent of St. Louis city residents and 22 percent of St. Louis County residents do not engage in any physical activity. Their study also found that city residents die of heart disease, cancer, stroke and diabetes at a higher rate each year than county residents.⁵⁸

The health benefits of outdoor recreation are undeniable. Brisk walking for just three hours a week or half an hour a day is associated with a 30 to 40 percent lower risk of heart disease in women.⁵⁹

Having a park or open space close to home greatly influences how often a person participates in outdoor recreation. In Missouri, only 17 percent of the state's census blocks contain at least one park or have one within a half-mile, as compared to a national average of 20 percent.¹⁹

In addition to building more parks, communities can partner to develop interconnected trails, parks and open space. They also can work with schools to provide community programs at school-owned recreation facilities. More than 90 percent of Missouri middle and high schools allow community-sponsored use of their facilities after hours.¹⁹

National studies show that people are more likely to use specific areas of a park when organized activities are provided, suggesting that the availability of structured, supervised activities will also increase park use.⁵⁹ In Missouri, residents want to see more organized and supervised recreation programs, according to our SCORP study.¹⁶

⁵⁷ Missouri County Health Rankings: Mobilizing Action Towards Community Health. <http://www.countyhealthrankings.org/missouri>. Robert Wood Johnson Foundation in collaboration with the University of Wisconsin Population Health Institute, 2011.

⁵⁸ Billhartz, Cynthia. Study analyzes health in poor neighborhoods. St. Louis Post-Dispatch, 2011.

⁵⁹ Godbey, Geoffrey. Outdoor Recreation, Health, and Wellness: Understanding and Enhancing the Relationship. Resources for the Future Background Study – Discussion Paper, 2009.

Youth, Technology and the Reality of Nature Deficit

Remember playing outdoors from morning 'til dusk, coming inside only when someone called you to dinner?

Those long childhood days outdoors are largely gone, lost to competition from television, handheld devices, computers, increased homework and extracurricular activities, and reduced access to natural areas.

Today's children spend only half as much time outside as their parents did, but use electronic devices an average seven hours a day.³⁹ They may be very aware of global threats to the environment but their intimacy with nature in their own communities is quickly fading.

As a result, many children are experiencing diminished senses, attention difficulties, obesity, and higher rates of physical and emotional illnesses – something Richard Louv, author of the book *Last Child in the Woods*, calls nature-deficit disorder, the human cost of alienation from nature.⁶⁰



Children in nature (U.S. Fish & Wildlife)

“At no other time in our history have children been so separated from direct experience in nature,” says Louv, who adds that the impact goes far beyond this young generation. “If nature experience continues to fade from the current generation of young people, and the next, and the ones to follow, where will future stewards of the earth come from?”

Nationally, the nearly 80 percent of Americans who live in or near cities find it difficult to connect with the outdoors, according to America's Great Outdoors, an initiative launched by President Obama to develop a 21st century conservation and recreation agenda.³⁹ Since outdoor activity typically declines with age, adults must find ways to involve children early to ensure a healthy future population.

Childhood participation in outdoor recreation nationally is highest among six- to 12-year-olds and declines gradually through the teen and early adult years, according to the Outdoor Foundation.⁴²

These participation rates are reflected in Missouri, where professionals are able to meet the recreation needs of young children but find it difficult to interest teens and keep them involved.¹¹ Only 60 percent of Missouri parents believe that their children's outdoor recreation needs are being met, and residents want to see more organized recreation programs for youth.¹⁶

⁶⁰ Louv, Richard. *Last Child in the Woods: Saving Our Children from Nature-Deficit Disorder*, 2010.

In Missouri, less than one in three children under 17 spend two hours or more a day in outdoor recreation,²⁷ much lower than the 60 percent or more of children nationally who spend at least two hours outdoors according to a 2009 study.³⁶ One in four Missouri high school students, however, is physically active at least an hour a day as compared to just 17 percent of teens nationwide.³⁶

The most popular outdoor recreation facilities for Missouri children under five are playgrounds, pools and aquatic centers. Children six to 12 use those facilities plus sports fields, sports facilities and camping sites. Teens most often use sports fields, pools, skate and skateboard parks, sports facilities and baseball/softball fields.¹¹

As mentioned earlier, the nationwide popularity of skateboarding may provide an entry point to outdoor recreation for some teens. In Missouri, recreation professionals rank skate parks as the third most popular facility among teens.¹¹

Trail running is increasingly popular among teens nationally and is a gateway activity – 98 percent of trail runners also participate in other outdoor activities.⁶¹ And unlike many outdoor activities, participation in trail running increases as youth age.

The recession may have spurred an increase in activity at parks and recreation facilities. A 2009 Trust for Public Land report showed a sharp increase in park use by families.⁵⁹ And a 2010 National Survey on Recreation and the Environment's (NSRE) National Kids Survey offers hope for future participation trends. According to the study, 41 percent of kids spent more time in outdoor recreation during the study year as compared to the previous year, while only 15 percent reported spending less time outdoors.⁶²

Missouri residents want to see more organized outdoor recreation programs, particularly for youth.¹⁶ State agencies have long made efforts to involve children in the outdoors. Missouri State Parks, the Missouri Department of Conservation and other agencies offer Children in Nature programs to get children outdoors where they can experience and connect with nature.

Governor Jay Nixon and First Lady Georganne Nixon launched the statewide Children in Nature Challenge to give Missouri children more opportunities to learn about and experience nature first-hand across the state. Two lead agencies – the Missouri Department of Conservation and Missouri State Parks – work with the Departments of Elementary and Secondary Education, Health and Senior Services, Mental Health, Higher Education, and Economic Development to:

- Reach out to Missouri communities and encourage their use of existing state programs to educate and connect children with nature and the outdoors;
- Encourage communities to build local programs that expand upon existing state programs;

⁶¹ Special Report on Trail Running. Outdoor Industry Foundation, 2010.

⁶² Cordell, H. Ken; Betz, Carter J; Green, Gary T.; Dunleavy, Patricia G. National Survey on Recreation and the Environment - National Kids Survey. 2010.

- Serve as informational resources for Missouri communities undertaking the Challenge;
- Champion the Discover Nature Schools program and other indoor and outdoor instructional components for K-12 curriculum that strengthen children's connection to nature and enhance their education about the environment;
- Promote the Challenge and develop a process to recognize Missouri communities for their efforts and successes.

The WOW (Wonders of Wildlife) Program is a National Outdoor Recreation and Conservation School program that introduces families and individuals to a variety of outdoor activities. WOW provides hands-on learning in an outdoor setting, attracting a wide range of ages, interests and abilities. In Missouri, WOW is conducted at various locations throughout the state as a multi-agency effort between local, state and federal partners.

The Department of Conservation mentors new hunters and anglers through youth hunting seasons, kids fishing days, free fishing days, youth hunt workshops and other special events.

The Missouri State Park Youth Corps gives young Missourians a chance to prepare for tomorrow's careers while experiencing the beauty and grandeur of Missouri's state parks.



Outdoor classroom (U.S. Fish & Wildlife)

Participants are challenged to “Think Outside” by working on projects that help preserve and enhance the state park system. A partnership between the Missouri Department of Economic Development’s Division of Workforce Development and the Missouri State Parks, the program helps youth develop critical leadership skills while bolstering an appreciation for the environment and “green” business concepts.

These kinds of programs can deliver big results. According to a nationwide study of data from the Youth Risk Behavior Surveillance

System, a small annual per-person increase in spending for parks and recreation may have significant positive effects on youth physical activity.

For example, an extra \$10 per capita spent on parks and recreation was associated with one-third of a day more per week of vigorous exercise by girls. To put that expense into a broader perspective, healthcare costs in the United States topped \$8,000 per person in 2009, with almost none of the money going to prevention.⁵⁹

In Missouri, Kansas City spends \$129 per person/per year in park capital and operating expenses, well above the national median of \$84. The City of St. Louis, which includes Forest Park, the sixth most-visited park in the nation, and the Jefferson National Expansion Memorial (the Gateway Arch), spends \$61 per capita.⁶³

Mentoring by parents, friends and schools is an important tool for getting children interested in the outdoors. A study by The Outdoor Foundation shows that 90 percent of adults who are active outdoors were introduced to outdoor activities between the ages of five and 18.³

Technology is a double-edged sword that may help agencies increase participation in outdoor recreation. The Outdoor Nation Youth Summit attended by 500 “Outsiders” youth identified GPS devices, iPods, MP3 players and mobile phones as tools that can both enhance and worsen the outdoor experience. Technology provides practical benefits – such as music for exercise, GPS mapping, social media planning – that also can act as distractions.⁶⁴

Ultimately, studies show that the key to reaching youth who don’t recreate outdoors is to bring the outdoors to them through family participation, incentives, mentoring, partnerships with celebrities and companies that youth respect, school outreach and field trips.⁶⁴

⁶³ City Park Facts. Trust for Public Land. 2011.

⁶⁴ Technology and Social Media. Outdoor Nation, 2010.

Outdoor Recreation Trends

Facilities

Trails stand out as the most popular outdoor recreation facility type in Missouri and demand is expected to continue over the next five years, according to outdoor recreation professionals.¹¹

Trails are the most popular facility of Missouri adults, from 19-year-olds to seniors, now and in the near future.¹⁶

Playgrounds and multi-use fields are the next two most popular outdoor recreation facilities among Missouri residents, followed by picnic areas, gardens and soccer fields. Football and baseball fields, picnic areas, fishing sites and outdoor swimming pools also are growing in popularity.¹⁶

Missouri children use playgrounds, water parks and pools, sports fields, and campsites more than other facilities. Teens most often use sports fields, water parks and pools, skateboard and skate parks, sports facilities and ball fields.¹¹

Field sports, swimming and parks attract young adults. As they age, Missourians visit picnic areas, golf courses, ball fields, community centers and pools more often. Missouri recreation professionals predict an increased demand for soccer fields, multi-use fields, playgrounds and outdoor pools over the next five years.¹¹

Recreation professionals expect to see little change over the next five years in the use of target shooting and hunting sites, volleyball courts, campsites, golf courses, boating and water access sites, and outdoor basketball courts in Missouri. Most professionals report that none of the outdoor recreation facilities they manage are decreasing significantly in popularity.¹¹

Activities

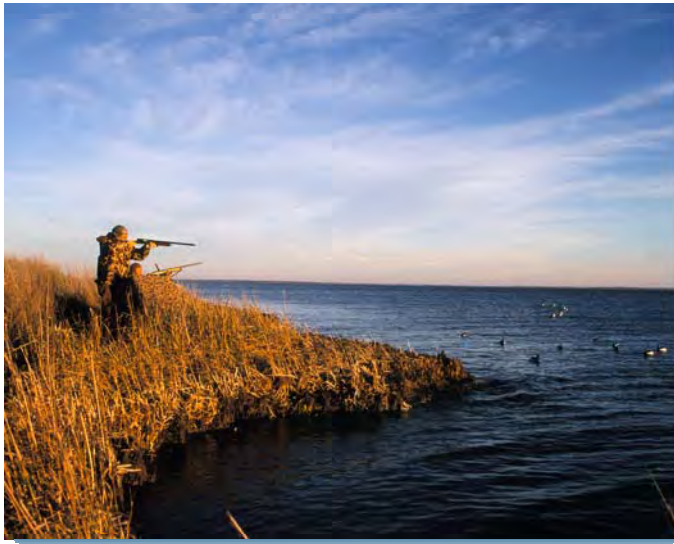
Walking is the most popular activity among Missouri residents who get outdoors daily, followed by gardening, birding/wildlife observation and dog walking.

Missouri residents overall expect to increase their walking, bicycling, birding/wildlife observation and hiking activity over the next five years,¹⁶ and recreation professionals expect trails to become much more popular.¹¹

Missourians camp at the same rate as the national average, about 15 percent of the population.⁶⁵ Camping is one of the most important and influential gateway activities, with more than three-fourths of people who camp also participating in other outdoor activities. Camping is expected to grow more in popularity in East-Central Missouri (636 area code) than other regions of the state.¹¹

⁶⁵ Special Report on Camping. Outdoor Foundation and Coleman Corporation, 2009.

Fishing and hunting, two important activities for introducing youth to the outdoors, are much more popular in Missouri than the national average, particularly among rural residents.⁶⁶ Nearly



Duck hunting (U.S. Fish & Wildlife)

30 percent of Missouri residents hunted in the past year as compared to just ten percent of Americans, according to a nationwide survey.

Two-thirds of rural Missourians go fishing each year as compared to 55 percent of urban residents¹⁶ and just 17 percent of Americans nationally.⁴⁶ Nearly 15 percent of Missourians overall expect to go fishing more often over the next five years.¹⁶

Not surprisingly, fishing, water sports, target shooting, hunting and ATV riding all are more popular among rural Missouri residents. Forty percent of rural

residents hunt and target shoot as compared to about one in four urban residents.¹⁶

One in five Missourians overall participates in ATV riding, another sport that is much more popular among rural than urban residents.¹⁶ Recreation professionals in Southwest Missouri expect to see hunting sites grow more popular over the next five years as compared to St. Louis-East. They also expect visits to target shooting sites to increase in Southwest and Northeast-Central-Southeast Missouri.¹¹

Urban Missourians walk, ride bikes, play baseball and golf more often than their rural neighbors.¹⁶ Professionals in urban areas predict an increased demand for ball fields, picnic areas and trails over the next five years.¹¹



Family bass fishing (U.S. Fish & Wildlife)

Half of Missouri residents expect to be more active outdoors over the next five years, with one in five saying their outdoor recreation will increase a lot. More urban residents anticipate their future activity increasing a lot as compared to rural residents (Table 29).¹⁶

⁶⁶ Special Report on Fishing and Boating 2010. Recreational Boating & Fishing Foundation and the Outdoor Foundation, 2010.

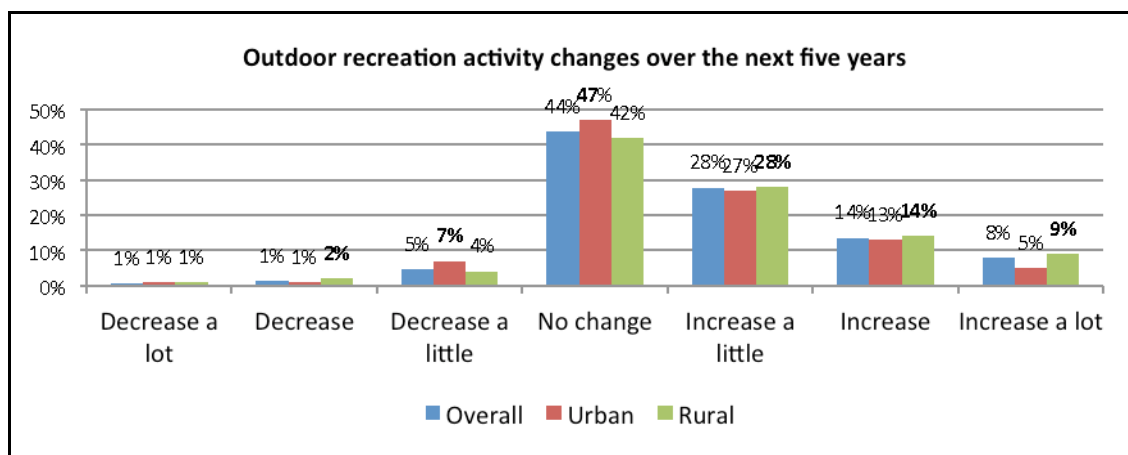


Table 29 - Changes in Activity Next Five Years - Urban vs. Rural

Fishing is the most popular activity expected to increase among current participants, followed by camping, bicycling and baseball (Table 30).

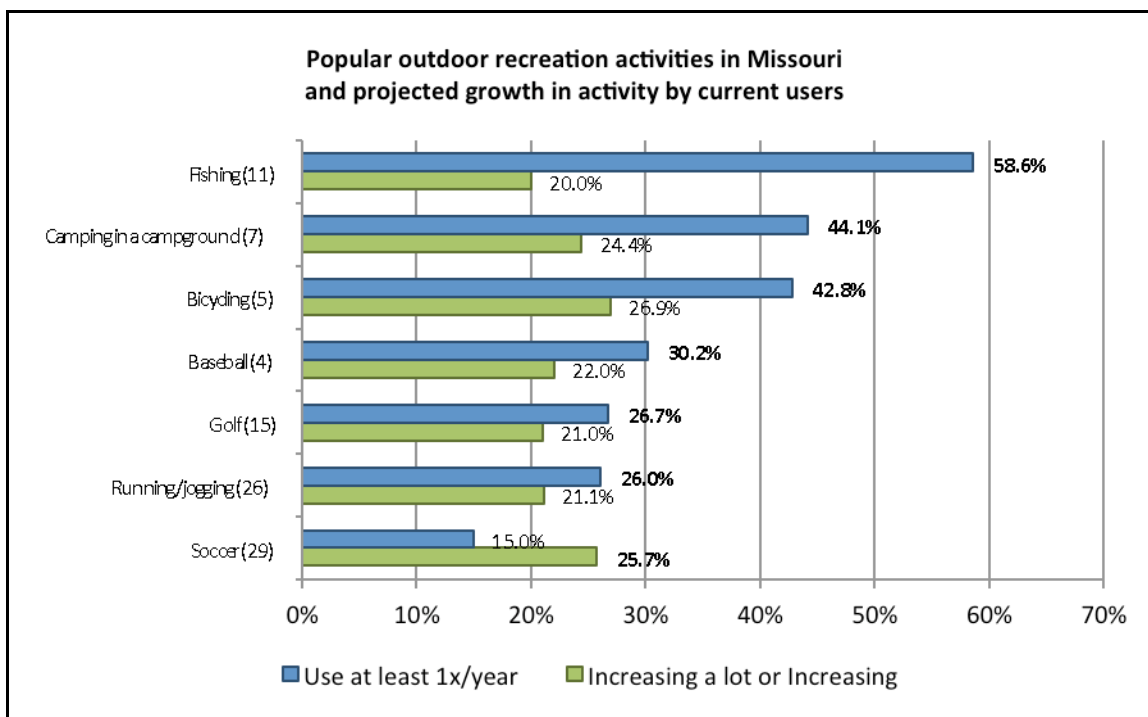


Table 30 - Growth in Popular Activities Next Five Years

Regionally, recreation professionals in Southwest Missouri (417 area code) predict an increased demand for gardens, ball fields, nature areas, campsites, and target shooting and hunting sites.

Professionals in the East-Central region predict a need for more multi-use fields, historic/education sites and campsites.¹¹

Recreation professionals in St. Louis-East (314 area code) expect an increased demand for gardens and nature areas while those in Northeast-Central-Southeast Missouri (573 area code) predict a higher demand for football fields and target shooting sites in their areas.

Professionals in the Northwest (660 area code) see a need for more gardens and campsites, and those in Kansas City-West (816 area code) expect ball fields and football fields to increase in popularity.¹¹

Obstacles to Outdoor Recreation

Time, health issues and cost often are cited as obstacles to spending time outdoors.

Half of Missouri residents don't get outdoors as much as they would like, and most say that work, family and personal obligations get in the way. Missourians who don't participate in outdoor recreation at all, blame age, health concerns and disability. Fifteen percent who never participate simply are not interested. Only one in twenty non-participants blames lack of time.²⁷

Nationally, the uncertain economy has affected spending on outdoor recreation but has not affected the time spent outdoors as much. A third of Americans have cut expenditures on equipment, travel and fees but more than half have not reduced their time outdoors. In fact, over the past decade, the number of people participating in outdoor activities has increased four percent and the days of participation have increased 25 percent.⁴⁰

One in five Missourians believes funding is a critical obstacle to improving outdoor recreation in the state. They also cite concerns about maintenance of existing facilities, a need for more locations and the availability of land for future parks.¹⁶

Finally, a lack of interest among some children and most teens presents unique challenges to outdoor recreation professionals. They must find ways to engage children and teens in outdoor activity, to improve their health and ensure their future participation and support for the outdoors.

Missouri Wetlands

Wetlands once covered nearly five million acres in Missouri. Most were bottomland ecosystems, filling the floodplains of Missouri's rivers and streams with marshes, swamp, shrub swamps, wet forests, prairies, oxbow ponds and sloughs.

Some wetlands were expansive, particularly along the Missouri and Mississippi rivers or the 2.4 million acre Mississippi Lowlands of southeast Missouri. Others were small, linked to geologic formations such as sinkhole ponds and grassy fens along lakes and rivers. On the flatwoods and hardpan prairies of the uplands, clay soils or bedrock held water on level plains and ridges.

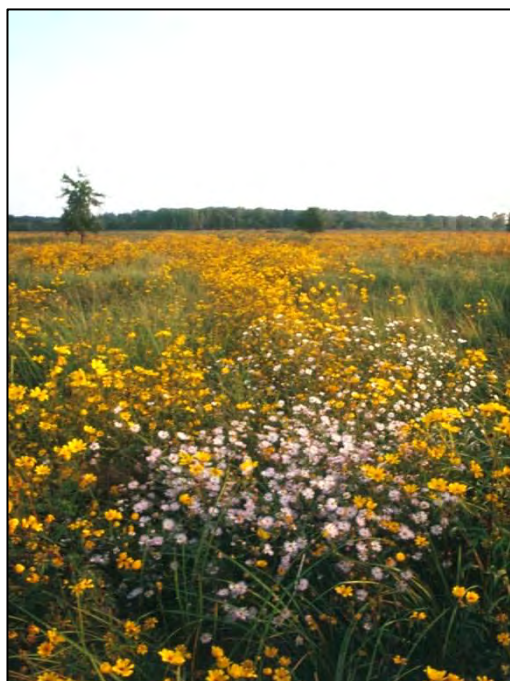


Figure 8

Today, wetlands are no longer common in any part of Missouri. Nearly 90 percent of our historic native wetlands have been drained for urban, pasture or farmland. While some types of wetlands have become quite rare, they still are the primary habitat for 200 plant and animal species considered rare or endangered in Missouri.

Wetlands are the wintering grounds and breeding habitat for many thousands of waterfowl, and the stopover grounds for migrating birds. All 43 of Missouri's amphibian species depend on wetlands, and many species of native fish, songbirds, mammals and insects inhabit them.

Modern wetlands also contribute significantly to tourism and outdoor recreation in Missouri. Hunting, fishing, hiking and birding are popular wetland

pursuits. Missourians increasingly sought are becoming involved with volunteerism on wetlands, with individuals, schools, environmental and youth organizations participating in wetland restoration projects made available by several recent public land acquisitions.

Agencies and Programs

Most public lands in Missouri contain or feature wetlands, and several agencies have developed programs to restore, manage, interpret or preserve them.

The Missouri Natural Areas program, the USDA's Wetland Reserve and Emergency Watershed Protection (EWP) programs, and the USACE's Missouri River Recovery Program all are examples of wetlands programs.

The Missouri Department of Conservation, Missouri State Parks, and the US Fish and Wildlife Service's National Wildlife Refuges all manage large units of public land that contain wetland resources, many with strong restoration and management components.

Missouri's Comprehensive Wildlife Strategy includes many Conservation Opportunity Areas (COA) that feature wetlands. COAs focus the cooperative efforts of Missouri's public, environmental constituents and resource agencies on conserving Missouri's most significant resources, many of which include wetland regions. COAs also are priority areas for many of Missouri's major programs, grants and management initiatives.

For example, one of only two extant wet prairies in Missouri, the Locust Creek Prairie at Pershing State Park, recently was expanded through a major collaborative effort. This 1,400-acre wetland addition was purchased and is being restored largely through the USDA-NRCS EWP program (Figure 8).

The restoration planning for Confluence Point State Park involved a highly interactive collaboration between agencies and organizations. This wetland complex so close to the St. Louis metropolitan area is an excellent example of the planning being done in Missouri (Figure 9).

The many recent Missouri River Recovery Program acquisitions and sites, led by the US Army Corps of Engineers, also are excellent examples of wetland acquisitions and planning among Missouri's resource agencies.



Error! Reference source not found. - School field trips include a restoration project at the Edward "Ted" and Pat Jones Confluence Point State Park

The U.S. Department of Agriculture has the lead role in restoring wetland acres on private lands in Missouri. The Natural Resources Conservation Service (NRCS) tracks Wetland Reserve Program restorative gains and reports that 137,798 acres in Missouri have been enrolled in WRP (Table 31).⁶⁷ Top counties include areas of low slope in Central Missouri and part of the Mississippi River lowlands in Southeast Missouri (Table 32).⁶⁷

Gerald Hrdina of the U.S.D.A. Farm Service Agency in Columbia, Missouri reported in October 2011 that the agency has enrolled 17,056 acres in their Conservation Reserve Program. These restored wetland tracts are parcels that flood often, so returning these wet areas to their functional status as wetlands is the most economically viable solution for the landowner.

⁶⁷ Missouri NRCS Wetlands Restoration Statistics. Source: Missouri NRCS Environmental Easements Geodatabase. Compiled October 25, 2011 by Clifford J. Baumer and checked by Elizabeth A. Cook.

Missouri NRCS Wetlands Restoration Acres by Program				
	<i>WRP</i>	<i>EWPP- EWRP</i>	<i>FPE</i>	<i>TOTAL</i>
Restoration Cost-Share Agreement	913			913
30-Year Easement	15309			15309
Permanent Easement	92967	19364	9245	121576
TOTAL	109189	19364	9245	137798
State or Federal Ownership	18065	6048	1469	25582
Private Ownership	91124	13316	7776	112216
TOTAL	109189	19364	9245	137798
<i>Average Easement Size = 141.3 acres</i>				
<i>Total Missouri NRCS wetlands restoration easements: 975</i>				

Table 31

Missouri NRCS Wetlands Restoration Acres by County			
<i>Rank</i>	<i>County</i>	<i>Number of Easements</i>	<i>Easement Acres</i>
1	Chariton	166	21036.2
2	Pemiscot	28	10372.2
3	Vernon	17	10181.7
4	Carroll	69	6963.1
5	Saline	46	6774.2
	New		
6	Madrid	25	6305.5
7	Livingston	44	5995.2
8	Howard	31	5081.9
9	Dunklin	24	4803.0
10	Linn	32	4349.1

Table 32

The U.S. Environmental Protection Agency (EPA) funds local, tribal and state wetland protection efforts and wetland program development. The EPA also oversees protection of all U.S. waters for water quality and beneficial uses. The EPA assists the Army Corps of Engineers in the oversight of Section 404 dredge and fill permits and Missouri 401 Water Quality Certification for projects that impact Missouri's streams and wetlands.

The Missouri Department of Conservation (MDC), which owns considerable public land in the state, lists 15 conservation areas with 80,587 acres of valued wetland acres that host wetland outdoor recreation activities. The MDC also assist the Army Corps of Engineers in developing and maintaining public lands that have been set aside for mitigation of water control works and navigation environmental impacts along the Mississippi and Missouri Rivers

<http://www.mvr.usace.army.mil/EMP/>.

Missouri State Parks, operated by the Missouri Department of Natural Resources (MDNR), manages 85 state parks and historic sites. The state park mission includes preserving Missouri's natural landscapes. Both major and minor wetlands exist throughout the system, and wetland restoration and management is a primary emphasis at all of these sites. In many cases, the public is given opportunities to experience and connect with natural wetlands through boardwalks, trails, overlooks, visitor centers, wayside exhibits and naturalist programs.

MDC and MDNR jointly administer the Missouri Natural Areas Program, which designates the best remaining examples of Missouri's native natural environments as State Natural Areas to be "managed and protected for their scientific, educational and historic values."

Missouri Natural Areas offer a mechanism for recognizing and preserving important examples of Missouri's natural communities, including the 23 distinct wetland natural community types found in the state. They include many of Missouri's signature wetlands, including examples from north Missouri's Big Rivers and Glaciated Plains (Figure).



Figure 10

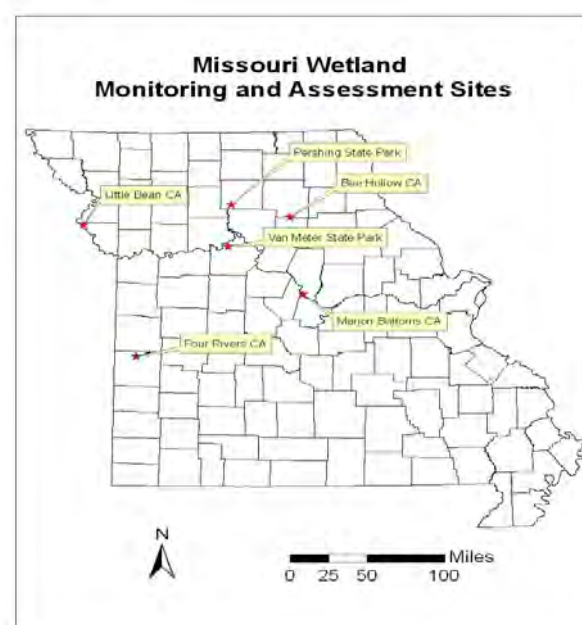


Figure 11

The MDNR Water Resources Center and several universities and state agencies have researched these wetlands, helping agencies refer back to a preferred condition for restored wetlands. State Natural Areas also serve as valuable education and recreation sites to help the public learn more about streams and wetland resources.

The MDNR Water Resources Center monitors the health and status of six Missouri wetland reference sites as part of a wetlands monitoring pilot program (Figure 11). The weather and hydrologic data from this project is made available in real time via the Internet. Streaming real-time data from these sites is a powerful tool for natural resource managers, wetland scientists and hydrologists working to better understand wetland functions. Further information on the wetland monitoring site locations is available at

<http://dnr.mo.gov/env/wrc/wetlands.htm>.

Wetland Acquisition Priorities

Missouri's wetlands are substantially reduced from their historic extent, yet they remain valuable for conservation and popular for outdoor recreation.

Wetlands of any type should be an acquisition priority for SCORP. Those situated near existing wetlands and public lands are particularly valuable, as they expand and concentrate natural systems into functional core units, which are most valuable for conserving species and maintaining wetland function. They also offer opportunities for the public to experience wetlands.

Several rare wetland types should receive particularly high emphasis. These include wet prairies, fens, marshes, flatwoods, swamps and wet bottomland forests.

Facilities to make wetlands more available and accessible to the public through trails, boardwalks, viewing areas and interpretation should be part of the overall state plan.

Strategically, wetland acquisitions that accomplish objectives within a designated Conservation Opportunity Area, enhance protection of Missouri Natural Areas and offer the best opportunity for the public to experience natural wetlands should receive top priority.

Next Five Years – Goals & Recommendations

Outdoor recreation can play a critical role in the lives and wellbeing of Missourians over the coming years, but only if it is affordable, accessible and relevant to residents' needs.

Research shows that outdoor recreation can improve physical and mental health, enhance local economies and reconnect people to the wonders of nature. In order to ensure future support and funding, providers must connect residents and community leaders with the values of outdoor recreation.

Missouri outdoor recreation goals and recommendations:

Meet Missourians' outdoor recreation needs

- **Provide easily accessible outdoor recreation facilities.**
Children and adults are more likely to participate in outdoor recreation if a facility is available close to home. Less than half of Missouri children currently have an outdoor recreation facility within a half-mile of their homes.
- **Focus on multi-use facilities.**
Trails, multi-use sports fields and other multi-use facilities help communities “do more with less” and serve the needs of more residents.
- **Encourage gateway activities.**
People who bike, run or walk on trails, go camping or fishing tend to participate in other sports as well. Gateway activities like these get people moving and often introduce them to new outdoor recreation options.
- **Provide more organized activities.**
Missourians want to see more organized activities, particularly for teenagers, who tend to lose interest in outdoor recreation.
- **Increase youth participation.**
Young people today are less active outdoors than any previous generation. Most active adults were first introduced to outdoor recreation as a child, by an adult. When kids play outdoors, everyone benefits – individuals, the community, the outdoor recreation industry and society as a whole.
- **Increase participation by minorities and older adults.**
Minorities are underrepresented in our parks and outdoor programs, and older adults are the second most underserved population after teenagers. Both groups make up growing segments of the population in Missouri

Make Connections

- **Team with other agencies that encourage healthy lifestyles.**
Other state agencies and nonprofit organizations share common goals and desired outcomes, such as reducing obesity, encouraging an active lifestyle and promoting amenities such as trails. Teaming with like-minded partners will increase the likelihood of success.
- **Communicate the value of outdoor recreation to residents and community leaders.**
Residents and community leaders value children, health, natural resources, conservation, clean air and water, employment opportunities and economics, but don't always connect them with outdoor recreation. Providers should promote the *benefits* of outdoor recreation that match these strong public values.
- **Connect community needs with the benefits of outdoor recreation.**
Residents want parks and other outdoor facilities near their homes but don't rank funding for parks as high as other community resources. Public communication can connect their needs with the benefits of outdoor recreation.
- **Promote the importance of funding outdoor recreation.**
Funding for outdoor recreation is the number one concern among recreation professionals, and is an issue that is growing more critical every day. Again, public communication is key to ensuring future funding for outdoor recreation.

Support Trails and Walkable Communities

- **Provide the structure and data for an ongoing trail inventory.**
A statewide trail inventory was conducted as part of this SCORP. The structure remains in place to expand the database.
- **Support the activities of a statewide Trail Alliance.**
The trail inventory conducted for this SCORP provides an excellent framework for an ongoing database of trail information, for use by planners and the public.
- **Encourage local officials to build walkable communities.**
Trails and walkable streets are in high demand throughout the state, and can provide close-to-home access to a wide variety of outdoor recreation activities.

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Appendix A – Footnote Reference Materials

“10 Things to Know About Urban vs. Rural” Missouri Census Data Center¹

Is America becoming more urban? What portion of the population is now living in an urban (vs. rural) setting? With all the debates and discussions related to *urban sprawl*, do we have a way of defining and measuring where and to what extent that phenomenon is taking place? The answers to all of these questions require that we have an agreed upon definition of what it means to be "urban" (or rural, since we presume the two categories to be mutually exclusive and exhaustive, i.e. that every person and piece of land in the nation can be assigned to exactly one category or the other.)

This page will look at the latest official Census Bureau definitions of urban and rural and will identify resources for determining to what degree various geographic areas are classified as being one or the other. We shall also look at how and where to get census and other data that can help us see what differences there may be between the two area types (in terms of how many people, age distributions, income and poverty levels, etc.), and perhaps more importantly, what trends do we see related to them.

It may seem obvious in many cases: central cities are clearly urban, while most farms -- real ones, at least -- are clearly rural. But there is more and more development in places sometimes referred to as "*exurbia*," and in fringe areas located within or adjacent to smaller cities, where the urban/rural classification is much less obvious. Because the definition of this concept is so important, we as a nation feel obligated to keep trying to improve it. This is no doubt a good thing for the sake of having a better measure of what is going on just recently, but it creates problems trying to analyze trends when the definition changes over time.

The current definition of Urban (which is also the definition of rural, since the two are complementary) went into effect with the 2000 decennial census, and is based upon population density data collected in that census. Unless otherwise noted, all references to urban vs. rural in this document will be using this definition.

1. **Urban vs. rural is assigned at the Census Block level.** Census blocks are the smallest geographic units that the Census Bureau recognizes in its geographic scheme. All other geographic areas used in census products can be defined as a collection of (usually, but not always, contiguous) census blocks. Any other kind of geographic area -- a city, county, school district, ZIP code, etc. -- will not necessarily be classified as completely urban or rural.

For example, Jackson County, Mo is the core county of the Kansas City metropolitan area and would seem to be obviously an "urban county." But according to the 2000 census there were over 26,000 persons (4%) in Jackson county who were living in census blocks classified as rural. Even within the city limits of Kansas City, Mo 1.3% of the population was classified as living in a rural setting.

If you look at the breakout based on land area instead of population you find that **43.3% of the land area of the city of Kansas City is classified as rural!** (Anyone who has had occasion to use the Kansas City airport, which is over 20 miles from downtown Kansas City and in a very rural setting but is within the city limits, will not be surprised by this statistic.)

¹ Missouri Census Data Center. <http://mcdc.missouri.edu/TenThings/urbanrural.shtml>

2. **There are no counties in Missouri that are 100% urban, except the independent city of St. Louis.** Of the 114 other counties in the state, only 33 are classified as being entirely rural.
3. **97.4% of the land area in the state of Missouri is classified as rural (per the 2000 Census).** But only 30.6% of the population is classified as living in rural areas. Thus, almost 70% of the population of the state lives in about 2.6% of the land. Nationwide, the same 97.4% of the land area is classified as rural, but only about 21% of the population lives in these rural areas.
4. **[MABLE/Geocorr](#) can be used to see U/R breakdowns.** This utility application has "Urban-Rural portion (2000)" as a choice on its Source/Target geography menus. Just select your state, select the geographic layer(s) of interest off the Source Geocode(s) menu and choose U/R off the Target Geocode(s) menu. Choose your weighting variable as either population (default) or land area. All of the statistics quoted above regarding what portions of the population and land areas of various geographic entities were generated using MABLE/Geocorr.
5. **The short definition of Urban and Rural.** It appears on a [Census Bureau web page](#) and is as follows:

For Census 2000, the Census Bureau classifies as "urban" all territory, population, and housing units located within an urbanized area (UA) or an urban cluster (UC). It delineates UA and UC boundaries to encompass densely settled territory, which consists of:

- *Core census block groups or blocks that have a population density of at least 1,000 people per square mile and*
- *Surrounding census blocks that have an overall density of at least 500 people per square mile*
In addition, under certain conditions, less densely settled territory may be part of each UA or UC.

The Census Bureau's classification of "rural" consists of all territory, population, and housing units located outside of UAs and UCs. The rural component contains both place and nonplace territory. Geographic entities, such as census tracts, counties, metropolitan areas, and the territory outside metropolitan areas, often are "split" between urban and rural territory, and the population and housing units they contain often are partly classified as urban and partly classified as rural.

6. **Urban is sometimes confused with "metropolitan"** or, more recently, "micropolitan," which is just metropolitan on a smaller scale. But the two concepts are significantly different. Metro and Micropolitan areas are comprised of complete counties; counties on the outer fringes of metro areas ("exurbia") often have the majority of their land areas and significant portions of their populations classified as rural.

The metropolitan concept has more to do with whether you live in an area where you either within or have access to an urban center. By having access we mean you can commute to work there (this is the primary criteria to being included in a metro area), access their TV and radio stations, subscribe to their newspapers, etc. Urban/rural does not much care about how far away from an urban center you are. It has much more to do with the density of the population in the immediate area around where you live.

While 30.6% of Missouri's population was classified as living in a rural area in the 2000 census, only about 14% lived outside of any metropolitan or micropolitan area (72.8% lived in metropolitan areas and 13.2% in micropolitan areas.) Notice the implication of these figures: **over 3/4 of the rural population is also metropolitan.** Nationwide we see that only about 25% of the rural population (about 14.6 million persons) lives outside of a metro area. About 51% live in metropolitan statistical areas and 24% in micropolitan statistical areas.

We have seen web sites

(<http://www.nhtsa.dot.gov/people/injury/ems/emstraumasystem03/glossary.htm>, just to cite an example), where the definition of Rural is presented as outside of an MSA (Metropolitan Statistical Area). While agencies may find it convenient to use such definitions and while there may be some merit and logic associated with these *alternate* definitions, it is important to keep in mind that these are not the official definitions and their widespread use just contributes to the confusion. It does seem easier and a bit less geeky just to say "rural" instead of "Non-metro." It may be okay until somebody wants to know how many people live in those "rural" areas.

7. **The previous definition of Urban used city limits instead of Urban Clusters.** While the details of how Urbanized Areas changed as part of the new Urban/Rural definition changes for 2000, the concept was pretty much the same. Instead of a requirement for a place (city) of 50,000 or more to form the core of a UA, we now have a more sophisticated way of identifying densely settled population clusters of 50,000 or more.

So, for example, Jefferson City, MO did not qualify as an Urbanized Area in 1990 because the city had a population of just under 40,000. Under the new criteria, however, the area *does* qualify because it takes into account not just the population living within the city limits, but rather the entire densely settled area that includes most of the city.

The more important change in the urban/rural definition came in how areas *outside* of UA's were classified. The new geographic entity involved is called an "Urban Cluster." A UC is defined using the same concept as a UA, except that the central population threshold is lowered from 50,000 to 10,000. So, for example, we have a Poplar Bluff (MO) *Micropolitan* Area, because that city and its immediate environs has a population over 10,000 (but less than 50,000). This central cluster area has nothing to do with city boundaries, and everything to do with dense population settlement. If you live on the outskirts of Poplar Bluff but are part of either the densely settled core or of the less densely settled adjacent area, then you are within the Urban Cluster -- and hence classified as Urban.

It has nothing to do with whether or not you live within any city limit. Under the *old definition*, if you lived outside an Urbanized Area ("big city area") then you were classified as urban if and only if you lived within a place of 2,500 or more population. That definition used to work pretty well, when people more or less lived "in town" or out in the "open country." But not any more; people living in unincorporated areas adjacent to smaller towns (such as Poplar Bluff) are living in densely settled areas and should be classified as urban.

On the other hand, if you live in a small town of 2,500 or more that does not meet the criteria of having a 10,000-person population cluster associated with it, then you are now classified as rural instead of urban under the new definition.

8. **Accessing Census Data for Urban/Rural Components.** The Census Bureau publishes results of the decennial censuses and the American Community Survey for "*Geographic Components*" of geographic areas (usually, only vary large ones such as states, regions and the nation). A geographic component is something such as the urban or rural portion of an area, or the portion within metropolitan statistical areas or within urbanized areas, or within central cities of metropolitan areas, etc. For example, on Summary File 3 for the 2000 Census - the most commonly used data product based on that census - there are geographic component summaries at the state level.

There are even more such summaries at the nation and U.S. region levels. The MCDC has found that when these geographic component summaries are intermixed with complete-geographic-area

summaries they can sometimes be a nuisance and cause confusion. So we separated out the geographic component summaries and created datasets named **usgeocomps** in both our sf32000 and sf32000x (standard extract) filetype directories. The codes for the urban and rural components (i.e. the values of the *geocomp* variable on the summary observations) are "01" and "43," respectively. So (for those of you familiar with our Uexplore/Dexter system), to see summary data for the rural portion of Missouri, you would navigate (via uexplore) to the sf32000x subdirectory, and select the usgeocomps.sas7bdat file. Within Dexter, you would filter based on the value of State (=29) and GeoComp (=43).

You can also **access summaries for such geographic components through American FactFinder**. For example, if you choose the AFF "Data Sets" option and then choose the 2000 Decennial Census and Summary File 3 and Detailed Tables with a geographic summary level of state or above, then after your output is displayed (I know, not too cool) they provide a little menu bar that lets you "change your results." If you click on the "Options" pull-down you are presented with a "Geographic Components" choice. Follow the menus and make your choices. It's really pretty easy to generate tables for urban and rural portions of states and the nation.

Understand, what this means is that you can get all the other detailed tables, things such as income measures, poverty level tables, housing value medians and distributions, propensity to live in mobile homes, etc. -- all this broken down not just by urban and rural but also by various subcategories of urban and rural, such as "Urban - in urbanized area - not in a central place" (which is what you might think of as "suburban").

Of course, if all you are interested in is how many persons and/or households within an area are classified as being urban and rural, that can be readily accessed from tables on files such as SF3. In our standard extracts based on Summary File 3 data (filetype sf32000x) we include the variables *urban*, *rural*, *InUAs* (living in Urbanized Areas), *InUCs* (living in Urban Clusters), *OnFarms* (persons living on farms), *UrbanHUs* (urban housing units) and *RuralHUs*. There are corresponding Pct variables for each of these items; e.g. *PctUrban* has the value of *Urban* as a percentage of the total population. All of these items, are derived from tables on Summary File 3. The definitions can be viewed in the [online metadata](#).

The data can be viewed within our [standard sf3-based demographic profiles](#). We did not include any urban/rural data on our standard extracts based on Summary File 1 in the 2000 census because, although the tech documentation told us the data would be available in Tables P2 and H2, the reality was that when those files were released those tables were not ready yet because it took so long for the Bureau to do the GIS-based processing that would permit assigning values to those tables. You can access those tables via American FactFinder, however.

Geographic Component summaries on census summary files is not new. Such summaries have always been published by the Bureau, although the number of categories has increased. Urban and Rural have always been the most important and widely accessed categories. Keep in mind, however, that the definitions have changed over time so the data are not entirely comparable.

9. **Urban and Rural does not get updated in the ACS. The American Community Survey** provides us with summaries of larger geographic areas throughout the decade. You might expect to be able to get geocomp summary data (see previous item) that would allow us to find out how many people now live in urban vs. rural areas, and what their characteristics are. You might especially think this because the Bureau does indeed publish geocomp summaries based on the ACS, and urban and rural are among the geographic component categories. For example, I can go to AFF (American FactFinder), choose Data Sets, and ask to see data from the 2005 ACS for the state of Missouri. I can

ask to see detailed table B01003 (Total Population) and have that table displayed. ("Total" pop in the 2005 ACS is actually just total pop living in households, but that's a different discussion.) One that table is displayed we can (as already mentioned, above) use the Options on the menu that appears above the output, and from that choose to see Geographic Components, including Urban and Rural. From this I can determine that the Bureau is reporting 1,803,146 (+/- 16,836 using the MOE figure) living in households in rural portions of Missouri. Unfortunately, this looks a little better than it really is. How does the Bureau assign the urban vs. rural characteristic to the ACS survey records?

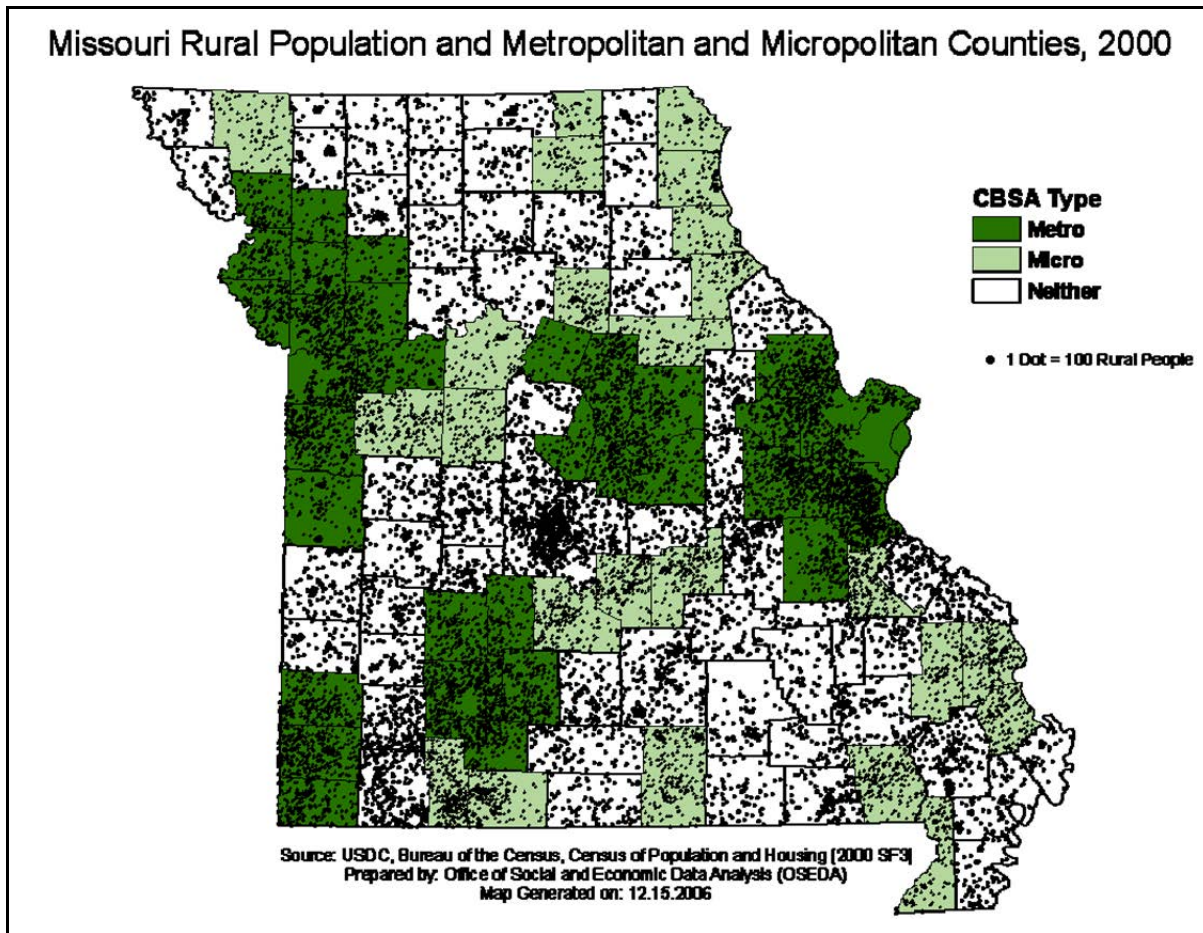
The answer is that they geocode the address of the survey respondent, attaching (among other things) the 2000 census block. Then they assign the urban/rural code to the household/person based upon the code assigned to that census block *as of 2000*. Why not use the urban/rural code assigned to that block based on **2005** data? Because *that data does not exist*. See item 4 in our [Ten Things to Know about the American Community Survey - 2005 Edition](#) document.

The ACS is not about head counts, it is about characteristics of persons and households. In order to define a census block as being urban or rural would require having a complete set of current block population counts which would then have to be used as input to the Bureau's very sophisticated GIS-based program that examines complex density patterns in order to make the category assignments. So, how am I to interpret the 1,803,146 persons in "rural areas"? If this number is higher than the comparable figure from the 2000 Census, does it mean that people are moving from urban to rural areas? If by "rural area" you mean an area that was classified as rural in 2000, based on 2000 data patterns, then the answer is probably yes.

But this does not (necessarily, or even probably) mean that we are abandoning urban settings to live in more rustic ones. That may be what we wanted to do, but what happens when people from urban areas move to areas that used to be rural but that are adjacent to urban areas, those areas are converted from rural to urban. It is just that we do not measure and recognize this conversion until after the next decennial census. Of course, it is always possible that in some areas it may have gone the other way, that some blocks formerly classified as urban have now become rural. But anyone who follows development patterns in the U.S. knows that this sort of change is almost unheard of, barring a natural or man-made disaster.

Bottom line on this point is that the figures for the rural portions of states and the nation that come from the ACS are probably counting too many people as being rural, with the corresponding under-counting of the urban portions. If you are studying urban sprawl and you want to use ACS data to look at how much land area has been converted from rural to urban as the result of sprawl, you should NOT be looking at the ACS geocomp summaries for Urban vs. Rural.

10. **A Picture of Rural Population in Missouri.** This map shows you what we were talking about in Item 6, above. Most of the rural population of Missouri (which is not at all an unusual state in terms of such things) lives in metropolitan or micropolitan areas. The figure we cited above that less than 3% of the land area of Missouri was classified as urban can be seen in this map. Although it does not display urban population explicitly, we know that it can only exist in an Urbanized Area or Urban Cluster.



Urbanized Areas/Urban Clusters and Metropolitan/Micropolitan areas are very closely linked, with the UA/UC just being the densely settled core area of the metro/micro area.

Urban territories on this map are green areas with no black dots. The St. Louis and Kansas City core areas are by far the largest such areas in Missouri. Most of the really dense clusters of black dots (rural population) are within the green areas, especially the dark green (Jefferson and Franklin counties just south and southwest of St. Louis, for example).

The biggest cluster of dots in a non-metro-micro (white on the map) area is in the Lake of the Ozarks region, an area inhabited by early retirees and others seeking to get away from the big city. This area is only marginally classified as rural; with growth in the Osage Beach/Lake Ozark area this decade it is very likely that after the 2010 census we'll have a Lake of the Ozarks micropolitan area and Urban Cluster, which will result in a large portion of the area's population being reclassified as urban.

What many people think of when they think of a rural lifestyle is one where going "into town" involves a significant journey that may only happen maybe once a week or less. But that is really not the case with a great majority of the rural population now (if you are looking for that group, the better category would be persons living in the white areas of the map -- i.e., outside any Metro or Micropolitan area).

The majority of the rural population today (in Missouri, at least) may have septic tanks and may not have access to city utilities and other services, but they do live within an easy drive of some population center, and the large majority, we suspect, have easy access to a Super WalMart. Most do *not* live on farms (only

about 2.5% of Missouri's population lived on farms in 2000; that comes to about 1 of every 12 rural residents). Most live in areas that look very much like suburbs or in small towns like Hermann or Osage Beach. (The latter small-town residents were actually classified as urban under the prior definition.)

The author acknowledges the valuable contribution of Lance Huntley, OSEDA, who produced the map in item 10.

This file last modified Saturday December 16, 2006, 11:15:47

Missouri Population by County Charts²

Figure 2
Missouri Population by County
 Top-Ten Largest Projected Numeric Increases
 2000 through 2030

Rank		County	Population		30-Year Change	
Numeric Increase	Percent Increase		2000	2030	Numeric	Percent
1	4	St. Charles	283,893	499,126	215,233	75.8%
2	8	Clay	184,006	300,021	116,015	63.0%
3	16	Greene	240,391	329,825	89,434	37.2%
4	1	Christian	54,285	131,066	76,781	141.4%
5	10	Boone	135,454	204,264	68,810	50.8%
6	22	Jefferson	198,099	260,276	62,177	31.4%
7	52	Jackson	654,880	714,467	59,587	9.1%
8	7	Cass	82,092	136,933	54,841	66.8%
9	2	Lincoln	38,944	91,294	52,350	134.4%
10	12	Jasper	104,686	152,490	47,804	45.7%

Figure 3
Missouri Population by County
 Top-Ten Largest Projected Numeric Decreases
 2000 through 2030

Rank		County	Population		30-Year Change	
Numeric Decrease	Percent Decrease		2000	2030	Numeric	Percent
1	25	St. Louis	1,016,300	956,817	-59,483	-5.9%
2	1	New Madrid	19,760	12,554	-7,206	-36.5%
3	18	Dunklin	33,155	28,765	-4,390	-13.2%
4	9	Pemiscot	20,047	16,447	-3,600	-18.0%
5	3	Iron	10,697	7,494	-3,203	-29.9%
6	7	Linn	13,754	10,696	-3,058	-22.2%
7	21	Saline	23,756	21,140	-2,616	-11.0%
8	4	Chariton	8,438	6,172	-2,266	-26.9%
9	2	Gentry	6,861	4,759	-2,102	-30.6%
10	13	Wayne	13,259	11,200	-2,059	-15.5%

² Missouri Office of Administration. The Missouri Population Projections 2000-2030- Population Trends

Figure 4
Missouri Population by County
Top-Ten Largest Projected Percentage Increases
2000 through 2030

Rank		County	Population		30-Year Change	
Percent Increase	Numeric Increase		2000	2030	Percent	Numeric
1	4	Christian	54,285	131,066	141.4%	76,781
2	9	Lincoln	38,944	91,294	134.4%	52,350
3	15	Warren	24,525	46,241	88.5%	21,716
4	1	St. Charles	283,893	499,126	75.8%	215,233
5	14	Webster	31,045	53,282	71.6%	22,237
6	12	Taney	39,703	68,041	71.4%	28,338
7	8	Cass	82,092	136,933	66.8%	54,841
8	2	Clay	184,006	300,021	63.0%	116,015
9	11	Platte	73,781	114,904	55.7%	41,123
10	5	Boone	135,454	204,264	50.8%	68,810

Figure 5
Missouri Population by County
Top-Ten Largest Projected Percentage Decreases
2000 through 2030

Rank		County	Population		30-Year Change	
Percent Decrease	Numeric Decrease		2000	2030	Percent	Numeric
1	2	New Madrid	19,760	12,554	-36.5%	-7,206
2	9	Gentry	6,861	4,759	-30.6%	-2,102
3	5	Iron	10,697	7,494	-29.9%	-3,203
4	8	Chariton	8,438	6,172	-26.9%	-2,266
5	14	Holt	5,351	4,094	-23.5%	-1,257
6	27	Worth	2,382	1,826	-23.3%	-556
7	6	Linn	13,754	10,696	-22.2%	-3,058
8	13	Sullivan	7,219	5,822	-19.4%	-1,397
9	4	Pemiscot	20,047	16,447	-18.0%	-3,600
10	15	Atchison	6,431	5,280	-17.9%	-1,151

Mississippi River Trail

MRT Trail Status

Green segments are fully designated, signed and described in promotional material.

Yellow segments may include dangerous areas and routing problems.

Purple segments mark adjacent trails.

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Ozark Trail – Sections

The Ozark Trail is divided into 13 sections roughly between 10 to 40 miles in length. Each section provides its own unique experience with deep Ozark woodlands, clear running streams and open glade areas for panoramic views of the surrounding landscapes. A brief description of each section follows:

Courtois Section: This 45-mile section has trailheads in the Huzzah Conservation Area, at Harmon Springs, on Highway 8 and at Hazel Creek. All have limited parking. The trail uses the western half of the Berryman loop trail. The trail from Harmon Springs to Hazel Creek is popular with mountain bikers and equestrians. Trail uses: Hiking, mountain biking and equestrian use.

Trace Creek Section: Located southwest of Potosi, the 26-mile section has trailheads at Hazel Creek campground and Highway A, both with limited parking. The trail leads through dense forests into shaded hollows and across ridge tops. Trail uses: Hiking, mountain biking and equestrian use

Taum Sauk Section: The 35-mile stretch is considered one of the best trails in Missouri, taking hikers over ancient mountains with grand vistas, through glades, past the state's highest waterfall and highest point and to scenic shut-ins. Trailheads are at Highway A, Johnson's Shut-Ins State Park, Taum Sauk Mountain State Park and Highway 21. Trail uses: Hiking only

Marble Creek Section: This is a pleasant, 10-mile hike and an excellent mountain bike trip. The trail, named after the colorful deposits of dolomite, leads users around Crane Lake. Trailheads are at Crane Lake and Marble Creek campground. Trail uses: Hiking, mountain biking and equestrian use

Wappapello Section: This 35-mile section runs from Sam A. Baker State Park to Lake Wappapello, ending at Hendrickson. It follows the St. Francis River for 15 miles through woodlands and bottoms. Trailheads are located at Highway 143, Highway 34, Highway FF at Little Lake Creek and Highway O in Hendrickson. Trail uses: Hiking, mountain biking and equestrian use.

Victory Section: Named for the old Victory School, the trail is 18 miles long and incorporates a portion of the Victory horse trail between Elsinore and Hendrickson. Trailheads are located on Highway 172, at Wrangler, Upalika Pond, Walton Chapel and Brushy Creek. Trail uses: Hiking, mountain biking and equestrian use

Karkaghne Section: This 29-mile-long trail runs just below the ridge tops at its snakes from Oates to Highway 72, dipping into the valleys as it crosses the West Fork of the Black River. The southern end of the trail has a spur to Grasshopper Hollow, a large fen complex. Trailheads are on Highway J, at Sutton Bluff and at Blair Creek. Trail uses: Hiking, mountain biking and equestrian use.

Middle Fork Section: The 24-mile-long trail crosses many brooks and streams in the upper basin of the Middle Fork of the Black River. The northern trailhead is on Highway DD, with another on Highway J. Trail uses: Hiking, mountain biking and equestrian use

Blair Creek Section: The trail runs for 26 miles, passing through the Roger Pryor Pioneer Backcountry on its way to the Current River at Owl's Bend. It offers outstanding views from the bluffs over the river. Trailheads are at Highway P and Owl's Bend. Trail use: Hiking only.

Current River Section: The trail begins at the Current River and leads toward Stegall Mountain, offering 30 miles of outstanding scenery. The features include a scenic shut-ins on Rocky Creek and mountaintop glades. Trailheads are located at Owl's Bend, Powder Mill Ferry, Peck Ranch and Highway 60. Trail uses: Hiking only.

Between the Rivers Section: The trail runs 30 miles from Highway 60, winding through several small tributaries that feed the Current River. It climbs onto a major ridge that divides the watersheds of the Current and Eleven Point rivers. Trailheads are on Highway 60 and at the Sinking Creek lookout tower. Trail uses: Hiking, mountain biking and equestrian use

Eleven Point Section: Great views and a visit to the sparkling Eleven Point River make this 29-mile section a favorite. Trailheads are at Greer Springs campground and McCormack Lake. Trail uses: Hiking, mountain biking and equestrian use.

North Fork Section: This recently opened section is 27 miles long and leads into the Devil's Backbone Wilderness Area. The trailheads are at Pomona, Highway CC and Devil's Backbone. Trail uses: Hiking, mountain biking and equestrian use

For more information on the Ozark Trail, including detailed maps and information on each section, visit ozarktrail.com.

Missouri Natural Areas and Wild Areas³

Missouri Natural Area	State Park Location	Acreage
Babler Southwoods Hollow	Babler State Park	17 acres
Bennett Spring Hanging Fen	Bennett Spring State Park	5.35 acres
Big Oak Tree	Big Oak Tree State Park	940 acres
Big Sugar Creek	Cuivre River State Park	56 acres
Botkins Pine Woods	Hawn State Park	30 acres
Chariton River Hills (Bee Trace)	Long Branch State Park	384.4 acres
Chariton River Hills (West Char.)	Long Branch State Park	44.4 acres
Coakley Hollow Fen	Lake of the Ozarks State Park	4 acres
Coonville Creek	St. Francois State Park	49 acres
Cordgrass Bottoms	Pershing State Park	80 acres
Des Moines River Ravines	Battle of Athens State Historic Site	40 acres
Elephant Rocks	Elephant Rocks State Park	7 acres
Elk River Breaks Woodland	Big Sugar Creek State Park	1,613 acres
George A. Hamilton Forest	Cuivre River State Park	40 acres
Graham Cave Glades	Graham Cave State Park	81.5 acres
Grand Gulf*	Grand Gulf State Park	60 acres
Ha Ha Tonka Karst	Ha Ha Tonka State Park	70 acres
Ha Ha Tonka Oak Woodland	Ha Ha Tonka State Park	953 acres
Johnson's Shut-Ins	Johnson's Shut-Ins State Park	180 acres
JSI Dolomite Glade	Johnson's Shut-Ins State Park	18 acres
JSI Fen	Johnson's Shut-Ins State Park	8 acres
LaMotte Sandstone Barrens	Hawn State Park	81 acres
Lincoln Hills	Cuivre River State Park	1,872 acres
Locust Creek	Pershing State Park	330 acres
Meramec Mosaic	Meramec State Park	831 acres
Meramec Upland Forest	Meramec State Park	461 acres
Montauk Upland Forest	Montauk State Park	40 acres
Mudlick Mountain	Sam A. Baker State Park	1,370 acres
Orchid Valley	Hawn State Park	120 acres
Oumessourit (including Van Meter Forest)	Van Meter State Park	300 acres
Pickle Creek	Hawn State Park	58 acres
Pin Oak Slough	Knob Noster State Park	4 acres
Regal Tallgrass Prairie (East Drywood, Hunkah, Tzi-Sho)	Prairie State Park	3,646 acres
Roaring River Cove Hardwoods	Roaring River State Park	120 acres
St. Francois Mountains	Taum Sauk Mountain State Park	5,428 acres
Vancill Hollow	Trail of Tears State Park	300 acres
Vilander Bluff	Onondaga Cave State Park	206 acres
Washington State Park Hardwoods	Washington State Park	68 acres
<i>*L-A-D Foundation owns Grand Gulf Natural Area, DNR manages the site</i>		
Total	37 Natural Areas	19,855.65 acres
L-A-D Foundation	1 Natural Area	60.00 acres
TOTAL ACRES		19,915.65 acres

³ Missouri State Parks. <http://mostateparks.com/page/57888/missouri-state-park-designated-natural-areas>.

Missouri Wild Land	State Park Location	Acres
Big Sugar Creek	Cuivre River State Park	1,675
Coonville Creek	St. Francois State Park	2,256
East Fork	Johnson's Shut-Ins State Park	1,110
Gans Creek	Rock Bridge Memorial State F	720
Goggins Mountain	Johnson's Shut-Ins State Park	5,000
Indian Creek	Trail of Tears State Park	1,300
Mudlick Mountain	Sam A. Baker State Park	4,420
Northwoods	Cuivre River State Park	1,082
Patterson Hollow	Lake of the Ozarks State Park	1,275
Roaring River Hills	Roaring River State Park	2,075
Whispering Pine	Hawn State Park	2,080
Total		22,993

Missouri State Parks - Inventory of Facilities

Park Name	Basketball	Electrical	El W	El W	El W	El W	ADA	Group camp	Lodging	Marina/Sl	OWine	Fishing	Boating	Swimming	Trails	Biking	Trails	ATV	Trails	Picnic Sites	Picnic Shelter
Arrow Rock State Historic Site	12	34			1		3				■	I/R		■						■	O
Battle of Athens State Historic Site	14	15								RA		R			■					■	O
Battle of Carthage State Historic Site																					
Battle of Island Mound State Historic Site																					
Battle of Lexington State Historic Site														■						■	
Bennett Spring State Park	15	128			48		11	C/OT			■	R/S	CR	P	■					■	O
Big Lake State Park	16	52					4	C/OT		RA	■	L	C	P						■	O
Big Oak Tree State Park										RA		L			■					■	O
Big Sugar Creek State Park															■						
Bollinger Mill State Historic Site																				■	
Boone's Lick State Historic Site															■						O
Bothwell Lodge State Historic Site															■	MB				■	O
Castlewood State Park												R		■	■/E	MB				■	O
Clark's Hill/Norton State Historic Site															■						
Confederate Memorial State Historic Site											■									■	
Crowder State Park	10	31					2				L			B	■/E	MB				■	O/E
Cuivre River State Park	41	20			31,13	5	6			RA		I/R		■/E	■/E					■	O
Current River State Park																					
Deutschheim State Historic Site																					
Dillard Mill State Historic Site												5			■					■	
Dr. Edmund A. Babler Memorial State Park	30	43					4								■/E	HS				■	
																					O
																				■	O
Edward "Ted" and Pat Jones-Confluence Point State Park																					
Elephant Rocks State Park												L			■						
Felix Valle House State Historic Site																					
Finger Lakes State Park	19	16					2			RA	■			8		MB		■		■	
First Missouri State Capitol State Historic Site																					
Fort Davidson State Historic Site																					O
Gen. John J. Pershing Boyhood Home State Historic Site																				■	
Gov. Daniel Dunklin's Grave State Historic Site																					
Graham Cave State Park	34	18								RA		R			■/E					■	O
Grand Gulf State Park															■/E					■	
Ha Ha Tonka State Park												L		■	■/E	BP				■	O
Harry S. Truman Birthplace State Historic Site																					
Harry S. Truman State Park	71	127					11			WRA		L	BR	■/E	■					■	O
Hawn State Park	19	26				5	4								■/E					■	O
Hunter-Dawson State Historic Site																					
Illinivek Village State Historic Site															■					■	
Jefferson Landing State Historic Site																					
Jewell Cemetery State Historic Site																					
Johnson's Shut-Ins State Park	14	21			19	8	14	5	■	CC		UR		■	■/E	BP				■	O
Katy Trail State Park															■/E	MB/HS					
Knob Noster State Park	27	41					4					I/S			■/E	MB				■	O
																				■	O
Lake of the Ozarks State Park	62	127					10	OT		M/RA	■	L	BR/BR	■/E	■/E	MB				■	O
												L								■	
Lake Wappapello State Park	4	70					3	C/CC		RA											
Lewis and Clark State Park	7	62					3			RA	■		B								O

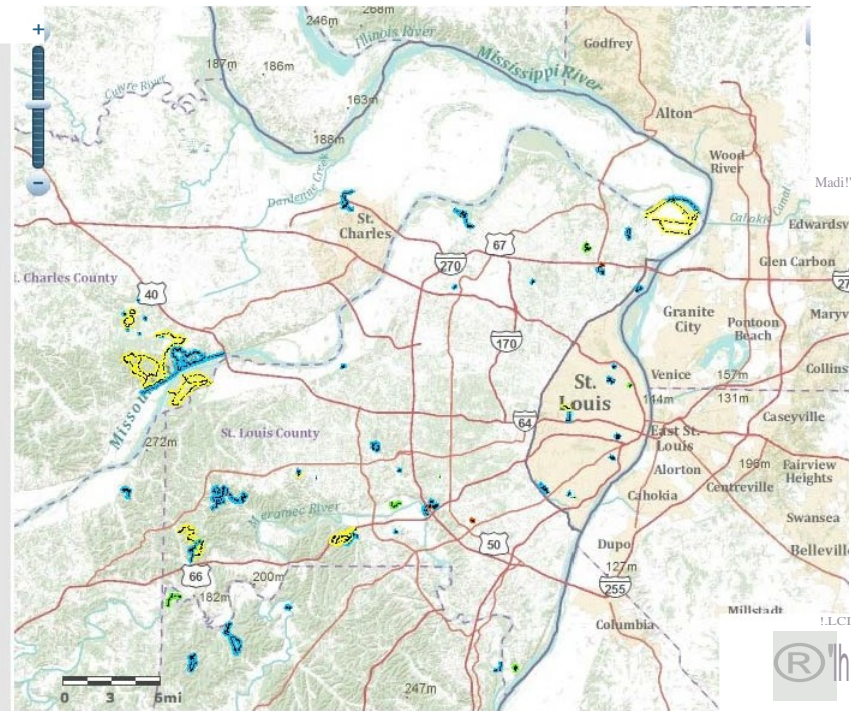
Missouri State Parks - Inventory of Facilities

Park Name	Backcountry	Electric	EI/W	S/EI/W	Eq/WI	NJA	Group Camp	Lodging	Marina/	Dining	Fishing	Boating	Swimming	Trails	Biking Trails	ATV Trails	Picnic Sites	Shelters
Locust Creek Covered Bridge State Historic Site											L							
Long Branch State Park	9	63			9	4			M/RA		L		o i B	■			■	
Mark Twain Birthplace State Historic Site											L			■				
																		O
Mastodon State Historic Site														on			■	O
Mark Twain State Park	22	75				6		CC	RA		L		o i B	■			■	OIE
Meramec State Park	5()	124	14	21		10	■	CIOT	RA	■	R	CR	■	on/BP			■	O
Missouri Mines State Historic Site																		
Montauk State Park	31	123				8		C/OT		■	I/R/5						■	O
Morris State Park														■				
Nathan Boone Homestead State Historic Site														on			■	
Onondaga Cave State Park	19		47			3			RA		L/R		■	■	MB		■	O
Osage Village State Historic Site																		
Pershing State Park	12	26				2					L/5			oniBP			■	O/E
Pomme de Terre State Park	41	192	20			9			M/RA	■		BR	■ 1 6	■			■	O
Prairie State Park	2										L			■ 18			■	O
Roaring River State Park	45	137		2		10		CIOT		■	R		o i P	on			■	O
Robertsville State Park	12	14				2			RA		R			■			■	O
Rock Bridge Memorial State Park											5			onIE	MB		■	O
Rock Island Trail State Park																		
Route 66 State Park									RA		R			■ IE	HS			
										■			■				■	
Roger Pryor Pioneer Backcountry														o/8P				
Sam A. Baker State Park	47	140			21	10	C		RA			CR						O
Sandy Creek Covered Bridge State Historic Site													■				■	
											R			o/8E	HS			O
Sappington Cemetery State Historic Site																		
Scott Joplin House State Historic Site																		
St. Francois State Park	47	63				6					R/5		■	o/118PIE			■	O
St. Joe State Park	35	40			25	5			RA		L		B	o/8PIE	MB/H5	■		O
Stockton State Park	14	60				5	5	CC/OT	M/RA	■	L	BR	o i B	■			■	O
Table Rock State Park	43	78	41			6			M/RA	●	L	CR/BR	●	●		MBIHS	●	O
Taum Sauk Mountain State Park					12									■ ISPIE			■	
Thomas Hart Benton Home and Studio State Historic Site																		
Thousand Hills State Park	15	42				3		OT	M/RA	■	■	CR/BR	B	o/8P	MB/H5		■	OIE
Towohahgy State Historic Site																		
Traf of Tears State Park	35	10	7			1			RA		I/R/5		B	o/8PIE			■	O
Union Covered Bridge State Historic Site																		
Van Meter State Park	9	12				1				■				on			■	O
Wakonda State Park	12	65	4			4		OT	RA	■	L	CR/BR	B	■	MB		■	
													■	■			■	

Wallace State Park	35	42	4	4				L									OIE
Washington State Park	26	24		3	C	RA		R	CR	oiP	o/BP						O
Watkins Mill State Park	22	74		5		RA		L		oiB	•IE	HS		■			O
Watkins Woolen Mill State Historic Site								L			■						
Weston Bend State Park	4	32		2				R			■	H5		■			OIE

Managed Trails, Missouri Department of Conservation (Q, t) | Screen View

This map displays trails on the Missouri Department of Conservation Management Areas.



in.rHj About

Legend

MDC Tra IS

Area Access Trail

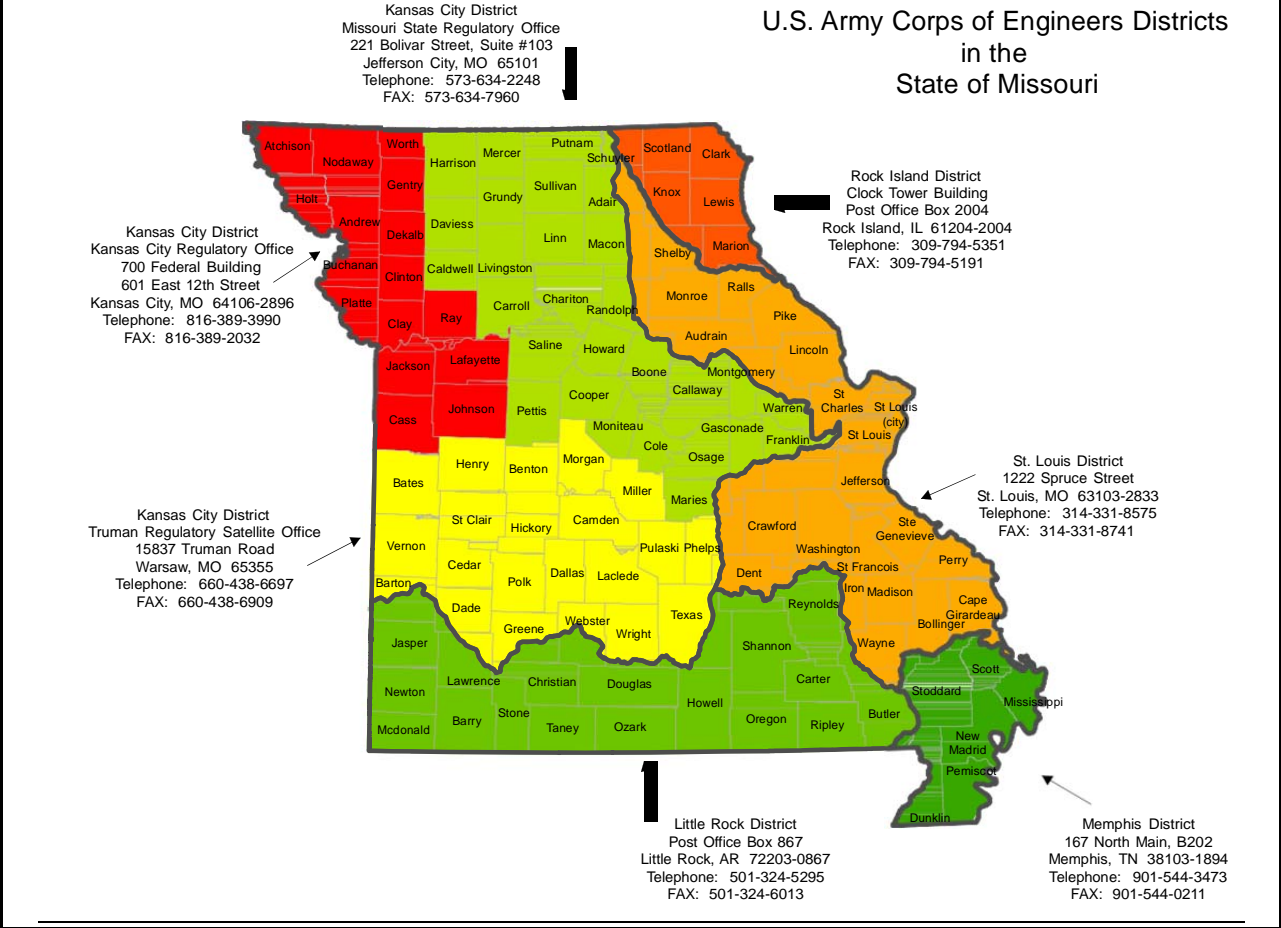
- Disabled Accessible Trail
- Hiking Trail
- MultiUse Trail

Missouri Department of Conservation Map U.S. Corps of Engineers Maps

U.S. Army Corps of Engineers - Missouri											
Recreation Area											
	Camping	Lodging	Showers	Boat Ramps	Marina	Gas	Picnic Area \ Shelter	Playground	Swimming Area	Fishing Facilities	Trails
Blue Springs Lake	X			X	X	X	X			X	
Bull Shoals Lake	X			X	X		X	X	X		X
Clearwater Lake	X		X	X	X		X	X	X		X
Harry S. Truman Lake	X	X	X	X	X	X	X	X	X	X	X
Illinois River - Riverlands		X		X							
Kanawha River - London Pool							X				
Long Branch Lake	X		X	X	X	X	X	X	X	X	X
Longview Lake	X			X	X		X				X
Mark Twain Lake	X	X	X	X	X	X	X	X	X	X	X
Mississippi River - Upper	X	X	X	X	X	X	X	X	X	X	X
Pomme De Terre Lake	X		X	X	X	X	X	X	X	X	X
Smithville Lake	X	X	X	X	X	X	X	X	X	X	X
Stockton Lake	X		X	X	X		X	X	X	X	X
Table Rock Lake	X		X	X	X	X	X	X	X	X	X
Wappapello Lake	X	X	X	X	X	X	X	X	X	X	X



U.S. Army Corps of Engineers Districts
in the
State of Missouri



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MISSOURI RESIDENTS' AND RECREATION PROFESSIONALS' OPINIONS ON PARKS AND RECREATION IN MISSOURI

**Conducted for the Missouri Park & Recreation Association
by Responsive Management**

2009

MISSOURI RESIDENTS' AND RECREATION PROFESSIONALS' OPINIONS ON PARKS AND RECREATION IN MISSOURI

2009

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Acknowledgments

The Missouri Park & Recreation Association gratefully acknowledges its partners, The Missouri Department of Natural Resources, The Conservation Federation of Missouri, The Open Space Council of the St. Louis Region, and The Missouri Parks Association, without whose assistance this project would not have been possible. Finally, many thanks to those who gave countless hours to undertake this project for the betterment of parks, recreation, and open space in Missouri.

Missouri Park & Recreation Association

- Susan Trautman, Co-Chair Strategic Plan Committee, Des Peres
- Michael R. Herron, Co-Chair Strategic Plan Committee, Kansas City
- Erika Coffman, President, Columbia
- Tom Lovell, President-Elect, Lee's Summit
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- Eric Urfer, Independence
- Mary Vaughan, Maryland Heights
- David Vaught, University of Missouri-Columbia
- Dave White, Westport Pools
- Sonja Wilhelm-Stanis, University of Missouri-Columbia

The Missouri Department of Natural Resources – Division of State Parks

- Chris Buckland, Planner-Grants Management
- Jane Lale, Planning & Development Director
- Mary Donze, Planner
- Denny Bopp, Field Operations Supervisor-Ozark

The Conservation Federation of Missouri

- Dave Murphy, Executive Director

The Open Space Council for the St. Louis Region

- Ron Coleman, President

The Missouri Parks Association

- Terry Whaley, President

EXECUTIVE SUMMARY

INTRODUCTION AND METHODOLOGY

This study was conducted for the Missouri Park & Recreation Association (MPRA) to determine parks and recreation professionals' and Missouri residents' opinions on, attitudes toward, perceptions of, and values that they place on parks and recreation services in Missouri. The survey had questions exploring the value of recreation, perceptions of governmental priorities for spending as those priorities relate to recreation, perceptions of strengths and weaknesses of the parks and recreation profession, and residents' participation in recreation in Missouri. The study entailed two surveys: a multi-modal survey of recreation professionals and a telephone survey of Missouri residents.

For the multi-modal survey of parks and recreation professionals, a list of professionals to be surveyed was provided by the MPRA and the Missouri Municipal League. The survey was attached as a PDF file to an email to each of these professionals. Parks and recreation professionals could then complete the survey at their own convenience. The PDF forms could be filled out electronically or printed and filled out by hand. The completed PDF forms were then emailed, transmitted by facsimile, or mailed to Responsive Management. These results are identified on the graphs as "Professionals."

For the survey of Missouri residents, telephones were selected as the preferred sampling medium because of the almost universal ownership of telephones; note that both landlines and cellular telephones were called in the proportion in which these types of telephones are used in Missouri. An additional reason for selecting telephones for the survey is that telephone surveys, relative to mail or Internet surveys, allow for more scientific sampling and data collection, provide higher quality data, obtain higher response rates, are more timely, and are more cost-effective. Telephone surveys also have fewer negative effects on the environment than do mail surveys because of the reduced use of paper and reduced energy consumption for delivering and returning the questionnaires. These results are identified on the graphs as "Missouri residents."

Both the multi-modal survey and the telephone survey questionnaires were developed cooperatively by Responsive Management and the MPRA. Responsive Management conducted

pre-tests of the questionnaires to ensure proper wording, flow, and logic in the surveys. Telephone interviews were conducted Monday through Friday from 9:00 a.m. to 9:00 p.m., Saturday from noon to 5:00 p.m., and Sunday from 5:00 p.m. to 9:00 p.m., local time.

The multi-modal survey was conducted in November and December 2009; the telephone survey was conducted in November 2009. Responsive Management obtained a total of 349 completed questionnaires from recreation professionals and 874 completed interviews with Missouri residents.

The software used for telephone interviewing and telephone survey data collection was Questionnaire Programming Language (QPL). The analysis of data was performed using Statistical Package for the Social Sciences as well as proprietary software developed by Responsive Management. Throughout this report, findings of the telephone survey are reported at a 95% confidence interval. For the sample of Missouri residents, the sampling error is at most plus or minus 3.3 percentage points. The sampling error for the telephone survey data was calculated using a sample size of 874 and a population size of 4,450,742 Missouri residents 18 years of age and older. No sampling error was calculated for the survey of professionals because the total population of professionals could not be determined.

PRIORITIES AND IMPORTANCE OF VARIOUS GOVERNMENTAL EFFORTS

- The survey asked about 13 governmental efforts, as shown in the text box on the following page. For each effort, the survey asked residents to indicate if the effort was *very* important, *somewhat* important, *not very* important, or *not at all* important as a government expense. The governmental efforts fall into four tiers when ranked by the percentage who say each effort is *very* important as a government expense.
 - In the top tier are schools and education (85% say this is *very* important) and public safety, such as police and fire departments (81%).
 - The second tier consists of 5 of the 13 items, each with 60% or more saying it is *very* important: social services, such as food, job training, and health care (70%), public works, such as roads and sewers (67%), affordable housing (62%), environmental protection (62%), and conservation of natural resources (60%).

- The third tier consists of economic development (54%), parks and open spaces (48%), recreation, such as ball fields, swimming pools, and community centers (42%), and preservation of historic and cultural resources (39%).
- The bottom tier consists of communities connected by sidewalks and trails (26%) and city and town beautification (17%).

Governmental Efforts About Which the Survey Asked

Schools and education
 Public safety, such as police and fire departments
 Public works, such as roads and sewers
 City and town beautification
 Conservation of natural resources
 Preservation of historic and cultural resources
 Parks and open spaces
 Affordable housing
 Environmental protection
 Communities connected by sidewalks and trails
 Recreation, such as ball fields, swimming pools, and community centers
 Social services, such as food, job training, and health care
 Economic development

- Professionals were also asked to rate the importance of the 13 governmental efforts. The list of governmental efforts can be placed into four tiers when ranked by the percentage who say each effort is *very* important as a government expense.
- In the top tier are schools and education (90% say this is *very* important), public safety, such as police and fire departments (89%), and public works, such as roads and sewers (78%).
 - The second tier consists of 3 of the 13 items, each with between 50% and 60% saying it is *very* important: parks and open spaces (58%), environmental protection (53%), and conservation of natural resources (52%).
 - The third tier consists of recreation, such as ball fields, swimming pools, and community centers (44%), economic development (40%), and social services, such as food, job training, and health care (33%).
 - The bottom tier consists of communities connected by sidewalks and trails (29%), affordable housing (25%), preservation of historic and cultural resources (24%), and city and town beautification (20%).

- The survey also asked about the importance of government spending on the provision of parks and recreation services for children. An overwhelming majority of Missouri residents (92%) say that this is *very* or *somewhat* important; only 7% say that it is *not very* or *not at all* important.
 - Professionals almost unanimously think that it is *very* or *somewhat* important for the government to spend tax dollars on the provision of parks and recreation services for children (97% think so, with 69% saying it is *very* important).
- The survey asked residents who have children living in their household if they would like to make educating their children about nature and the outdoors a higher priority, about the same level of priority, or a lower priority. They are about evenly split between saying that they would like to make it a higher priority (50%) or would like to keep it about the same priority (46%); a low percentage would like to make it a lower priority (1%).
 - Professionals who have children were also asked this question, with similar results: 54% would like to make it a higher priority, and 43% would like to keep it about the same priority; only 1% would like to make it a lower priority.
- The survey asked residents about those same 13 governmental efforts previously listed, but asked them how important each *personally* is to their *quality of life*, using the same scale that was previously used (*very* important, *somewhat* important, *not very* important, or *not at all* important). The governmental efforts fall into four tiers when ranked by the percentage who say each effort is *very* important to them personally.
 - In the top tier are schools and education (78% say this is *very* important) and public safety, such as police and fire departments (77%).
 - The second tier consists of 5 of the 13 items, each with from 50% to 60% saying it is *very* important: environmental protection (59%), public works, such as roads and sewers (57%), conservation of natural resources (56%), affordable housing (56%), and social services, such as food, job training, and health care (54%).
 - The third tier consists of parks and open spaces (47%), economic development (47%), preservation of historic and cultural resources (37%), and recreation, such as ball fields, swimming pools, and community centers (35%).

- The bottom tier consists of communities connected by sidewalks and trails (25%) and city and town beautification (19%).
- An examination of the residents' survey results regarding how the governmental efforts ranked in importance as government expenses versus how the governmental efforts ranked in importance to the respondents personally for their quality of life found only minor differences in the rankings. There was no difference in the tiers into which they fell.
- Professionals were also asked to rate the importance of the 13 governmental efforts to them personally for their quality of life. Again, the efforts can be grouped into four tiers.
 - In the top tier are public safety, such as police and fire departments (76% say this is *very* important), schools and education (70%), and parks and open spaces (65%).
 - The second tier consists of public works, such as roads and sewers (57%), conservation of natural resources (53%), environmental protection (53%), and recreation, such as ball fields, swimming pools, and community centers (49%).
 - The third tier consists of economic development (35%) and communities connected by sidewalks and trails (30%).
 - The bottom tier consists of city and town beautification (23%), preservation of historic and cultural resources (23%), social services, such as food, job training, and health care (22%), and affordable housing (20%).

PARTICIPATION IN RECREATION, AND CONSTRAINTS TO PARTICIPATION

- Outdoor recreational activities are more popular than indoor recreational activities, when survey respondents are asked about their non-work time: 36% say that they enjoy mostly outdoor recreational activities, compared to 10% who say that they enjoy mostly indoor recreational activities (note that the most common answer is both about equally, at 53%).
 - Among professionals, results are similar: 41% say that they enjoy mostly outdoor recreational activities, compared to 3% who say that they enjoy mostly indoor recreational activities. Again, the most common answer is both about equally, at 56%.

- Half of Missouri residents surveyed (50%) indicate that they do *not* participate in recreational activities or things that they like to do in their non-work time as much as they would like.
 - When asked about things that prevent them from participating in recreational activities as much as they would like, residents most commonly name work obligations (65% of those who do not participate in recreation as much as they would like), distantly followed by age/health (15%), family obligations (8%), and cost (7%).
 - Professionals are even less satisfied with their amount of participation in recreation: 72% of professionals indicate that they do *not* participate in recreational activities or things that they like to do in their non-work time as much as they would like.
 - Among professionals, the most commonly named things that prevent them from participating in recreational activities as much as they would like include lack of time in general, work obligations, and family obligations.
- Residents with children living in their household were asked to indicate how many hours per week, on average, that each child spends outdoors. While the answers ranged widely, the median is 12 hours.
 - Professionals' answers also ranged widely on this question. Among professionals, the median is 10 hours.
- The survey asked residents to indicate the frequency that they had visited the following in Missouri within the past 2 years: a national park or national monument, a state park, a local park, or a local public recreation facility. More than three quarters of residents (78%) had visited a local park *frequently* or *sometimes*, the most popular location by far. This was followed by a state park (60%), a local public recreation facility (53%), and a national park or monument (50%).
 - The survey asked residents to name the last park, recreation area, or facility that they had visited in Missouri. The top ones include Forest Park in St. Louis, Mark Twain State Park, Creve Coeur Park in St. Louis County, Bennett Spring State Park, Harry S Truman State Park, and the Jefferson National Expansion Memorial (also known as the Gateway Arch).

- Residents were also asked to indicate the type of park, recreation area, or facility that they had last visited. The most popular type is a local park (39%) or a state park (25%).
 - Those who had *not* visited a park, recreation area, or facility were asked to indicate why they had *not* done so. Most commonly, they indicated that health/age was to blame. Other common responses include a disability preventing their going to a park and lack of interest.
- The above questions about visitation were also asked of professionals. For the most part, professionals were more avid in visiting the recreational places in Missouri: 97% had visited a local park *frequently* or *sometimes* in the past 2 years in Missouri, 81% had visited a local public recreation facility, 72% had visited a state park, and 47% had visited a national park or monument.
- Professionals' most popular types of park, recreation area, or facility that they had last visited were a local park (36%), a state park (19%), or a community center (14%).

IMPORTANCE OF AND VALUES ASSOCIATED WITH RECREATION

- The overwhelming majority of Missouri residents (93%) indicate that recreational activities or things they do in their non-work time are *very* or *somewhat* important to their overall quality of life, with most of those responses being *very* important (62%). Only 6% indicate that they are not important.
- Nearly all professionals surveyed (98%) indicate that recreational activities or things they do in their non-work time are *very* or *somewhat* important to their overall quality of life, with most of those responses being *very* important (71%).
- In an open-ended question, Missouri residents were asked what they think of when they think of parks and recreation. Responses ranged widely, with some people giving broad responses and other people naming specific sports or activities. The most common responses relate to park facilities and/or the actual parks themselves (33%). Other common topics named

include ball fields and/or leagues (20%), playgrounds (16%), hiking/trails (16%), wildlife (11%), and swimming (11%).

- Professionals were also asked this question. Their top responses are outdoors/open and/or green spaces (23%), parks (20%), responses related to places (not necessarily parks) that have a variety of activities (19%), hiking/trails (17%), fun/enjoyment (17%), and family/children (17%).
- The survey listed 16 possible benefits of parks and recreation activities and asked residents to indicate the importance of each, using a four-point scale (*very* important, *somewhat* important, *not very* important, *not at all* important). These are listed in the text box below.
- Three of them stand out markedly above the rest in the percentage who rate each as *very* important: cleaner air and water (79%), healthy childhood development (78%), and positive family activities (75%).
 - A middle tier is below these top three, consisting of items with at least 60% of residents saying the potential benefit is *very* important: providing wildlife habitat (68%), health and fitness (67%), a sense of peace and stress relief (64%), providing employment opportunities (62%), and protecting natural and historic resources (60%).

Possible Benefits of Parks and Recreation Activities About Which the Survey Asked

72. Health and fitness
73. Connecting with nature
74. A sense of peace and stress relief
75. Opportunities for play and competition
76. Positive family activities
77. Healthy childhood development
78. Providing cultural awareness
79. Opportunities to be with people
80. Attracting businesses
81. Promoting tourism
82. Enhancing property values
83. Providing employment opportunities
84. Preserving open space
85. Protecting natural and historic resources
86. Providing wildlife habitat
87. Cleaner air and water

- Professionals, too, were asked to rate the potential benefits of parks and recreation activities.
 - Three have more than 70% saying each is a *very* important benefit: health and fitness (80%), positive family activities (75%), and healthy childhood development (71%).
 - A middle tier below these three, but each with at least a majority saying it is a *very* important benefit, consists of preserving open space (66%), a sense of peace and stress relief (64%), cleaner air and water (63%), connections with nature (59%), protecting natural and historic resources (57%), providing wildlife habitat (56%), and opportunities for play and competition (51%).

- The survey asked respondents to indicate the importance of having parks and open space nearby if they were to choose a new residence. The large majority (84%) indicate that it would be important, including about half who say it would be *very* important (52%).

- A final way to explore the values associated with parks and recreation entailed reading statements to Missouri residents and asking them if they agree or disagree with each, using a five-point scale (strongly agree, agree, neutral, disagree, strongly disagree). The statements are generally favorable toward parks and recreation and/or suggest an obligation for society to have parks and recreation, with the exception of two statements that are not favorable toward parks and recreation. The statements are shown in the text box on the following page.
 - A majority indicate that they *strongly agree* or *agree* with each statement, with the exception of the two statements that are not favorable toward parks and recreation. In particular, four statements have 85% or more in agreement:
 - Spending time in the outdoors leads to happier and healthier lives. (95%)
 - Parks, recreation, and open space are important for people to improve and maintain good health. (90%)
 - Local communities in Missouri have a responsibility to preserve and maintain open space. (88%)
 - Missouri has a responsibility to preserve and maintain open space statewide. (85%)
 - Of interest is that the two statements that are not favorable (although they are not necessarily *unfavorable*) toward parks and recreation have only a little more than a third agreeing with them.

- Parks, open spaces, greenways, and conservation areas are a luxury rather than a necessity. (38%)
- Public recreation programs are a luxury rather than a necessity. (38%)
- Note that these latter *statements* are not favorable to parks and recreation; these *results*, however, suggest a favorable attitude toward parks and recreation, as 49% *disagree* that parks, open spaces, greenways, and conservation areas are a luxury rather than a necessity and 48% *disagree* that recreation programs are a luxury rather than a necessity.

Statements Relating To Parks and Recreation About Which the Survey Asked

- 106. Parks, recreation, and open space are important for people to improve and maintain good health.
- 107. Local communities in Missouri have a responsibility to preserve and maintain open space.
- 108. Missouri has a responsibility to preserve and maintain open space statewide.
- 109. Parks and open space increase property values in your community.
- 110. Parks and open space are important to your community's economy.
- 111. Parks, open spaces, greenways, and conservation areas should be budget priorities in your community even during economic hard times.
- 112. Parks, open spaces, greenways, and conservation areas are a luxury rather than a necessity.
- 113. Spending time in the outdoors leads to happier and healthier lives.
- 114. Public recreation programs are a luxury rather than a necessity.

- The above statements were also read to professionals, and they used the same scale regarding their agreement or disagreement with the statements.
 - A majority indicate that they *strongly agree* or *agree* with each statement, with the exception of the two that are not favorable toward parks and recreation. In particular, five statements have 90% or more in agreement:
 - Parks, recreation, and open space are important for people to improve and maintain good health. (96%)
 - Spending time in the outdoors leads to happier and healthier lives. (95%)
 - Local communities in Missouri have a responsibility to preserve and maintain open space. (93%)
 - Missouri has a responsibility to preserve and maintain open space statewide. (93%)
 - Parks and open spaces increase property values in your community. (90%)

- The two statements that are not favorable toward parks and recreation have very small percentages agreeing with them (also shown is the percentage in *disagreement*).
 - Public recreation programs are a luxury rather than a necessity. (14% agree; 71% disagree)
 - Parks, open spaces, greenways, and conservation areas are a luxury rather than a necessity. (13% agree; 74% disagree)

RATINGS OF PARKS AND RECREATION SERVICES

- Residents rated the overall quality of parks and recreation services in Missouri as a whole and in their community. They then rated the availability of parks and recreation services in Missouri and in their community. On all four questions, ratings are more positive than negative, as *excellent* and *good* ratings exceed *fair* and *poor* ratings. In general, ratings are better for “in Missouri” than for “in your community.”
 - For overall quality of parks and recreation services in Missouri, 82% give a rating of *excellent* or *good*, and 12% give a rating of *fair* or *poor*.
 - For overall quality of parks and recreation services in their community, 72% give a rating of *excellent* or *good*, and 22% give a rating of *fair* or *poor*.
 - For availability of parks and recreation services in Missouri, 80% give a rating of *excellent* or *good*, and 14% give a rating of *fair* or *poor*.
 - For availability of parks and recreation services in their community, 75% give a rating of *excellent* or *good*, and 21% give a rating of *fair* or *poor*.
- As was done in the survey of residents, professionals were asked to rate the overall quality and availability of parks and recreation services in Missouri as a whole and in their community. On all four questions, professionals' ratings are more positive than negative, as *excellent* and *good* ratings exceed *fair* and *poor* ratings. While the sum of *excellent* and *good* ratings are higher for the “in Missouri” questions than for the “in your community” questions, ratings of *excellent* by itself are higher for the “in your community” questions.
 - For overall quality of parks and recreation services in Missouri, 92% of professionals give a rating of *excellent* or *good*, and 7% give a rating of *fair* or *poor*.

- For overall quality of parks and recreation services in their community, 84% of professionals give a rating of *excellent* or *good*, and 15% give a rating of *fair* or *poor*.
 - For availability of parks and recreation services in Missouri, 86% of professionals give a rating of *excellent* or *good*, and 12% give a rating of *fair* or *poor*.
 - For availability of parks and recreation services in their community, 80% of professionals give a rating of *excellent* or *good*, and 20% give a rating of *fair* or *poor*.
- Residents also rated the overall safety of the parks in their community, with results similar to those above: 72% rate overall safety *excellent* or *good*, while 19% rate it *fair* or *poor* (with only 5% rating it *poor*).
- Professionals also give positive ratings to safety of parks in their community: 84% rate it excellent or good, while 12% rate it fair or poor.
- The survey examined residents' opinions on the quality of services of various providers of parks, recreation, and conservation services in Missouri. These are shown in the text box below. For all agencies, a majority give a rating of *excellent* or *good* (from 55% to 73%), and quite low percentages give a rating of *poor* (no more than 3% for any agency).
- In looking at the *excellent* and *good* responses combined, the top-rated agencies are the Missouri Department of Conservation (73% rate its services as *excellent* or *good*), the Missouri Division of State Parks (69%), the National Park Service (67%), the respondent's city park and recreation agency (66%), and the U.S. Fish and Wildlife Service (64%).
 - Three agencies have more than 10% of residents giving a *fair* or *poor* rating: the respondent's county park and recreation agency (18%), the respondent's city park and recreation agency (18%), and the U.S. Army Corps of Engineers (13%).

Agencies That Provide Parks and Recreation Services About Which the Survey Asked

96. The Missouri Division of State Parks
97. The National Park Service
98. The U.S. Forest Service
99. The U.S. Army Corps of Engineers
100. The Missouri Department of Conservation
101. The respondent's city park and recreation agency
102. The respondent's county park and recreation agency
103. The U.S. Fish and Wildlife Service

- Professionals also rated the quality of services of those providers of parks, recreation, and conservation services in Missouri.
 - In looking at the *excellent* and *good* responses combined, the top-rated agencies are the respondent's city park and recreation agency (83% rate its services as *excellent* or *good*), the Missouri Division of State Parks (81%), the Missouri Department of Conservation (81%), the National Park Service (68%), and the respondent's county park and recreation agency (57%)—each with a majority of respondents giving it positive ratings.

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INTRODUCTION AND METHODOLOGY

This study was conducted for the Missouri Park & Recreation Association (MPRA) to determine parks and recreation professionals' and Missouri residents' opinions on, attitudes toward, perceptions of, and values that they place on parks and recreation services in Missouri. The survey had questions exploring the value of recreation, perceptions of governmental priorities for spending as those priorities relate to recreation, perceptions of strengths and weaknesses of the parks and recreation profession, and residents' participation in recreation in Missouri. The study entailed two surveys: a multi-modal survey of recreation professionals and a telephone survey of Missouri residents. Specific aspects of the research methodology are discussed below.

For the multi-modal survey of parks and recreation professionals, a list of professionals to be surveyed was provided by the MPRA and the Missouri Municipal League. The survey was attached as a PDF file to an email to each of these professionals. Parks and recreation professionals could then complete the survey at their own convenience. The PDF forms could be filled out electronically or printed and filled out by hand. The completed PDF forms were then emailed, transmitted by facsimile, or mailed to Responsive Management. The completed PDF forms returned by email were imported directly into the database; completed surveys returned by facsimile or mail were entered into Responsive Management's database by data entry personnel. These results are identified on the graphs as "Professionals."

For the survey of Missouri residents, telephones were selected as the preferred sampling medium because of the almost universal ownership of telephones; note that both landlines and cellular telephones were called in the proportion in which these types of telephones are used in Missouri. An additional reason for selecting telephones for the survey is that telephone surveys, relative to mail or Internet surveys, allow for more scientific sampling and data collection, provide higher quality data, obtain higher response rates, are more timely, and are more cost-effective. Telephone surveys also have fewer negative effects on the environment than do mail surveys because of the reduced use of paper and reduced energy consumption for delivering and returning the questionnaires. A central polling site at the Responsive Management office allowed for rigorous quality control over the interviews and data collection. Responsive Management maintains its own in-house telephone interviewing facilities. These facilities are

staffed by interviewers with experience conducting computer-assisted telephone interviews on the subjects of natural resources and outdoor recreation. These results are identified on the graphs as “Missouri residents.”

Both the multi-modal survey and the telephone survey questionnaires were developed cooperatively by Responsive Management and the MPRA. Responsive Management conducted pre-tests of the questionnaires to ensure proper wording, flow, and logic in the surveys.

The data entry process was monitored by the Survey Center manager to ensure the integrity of the data from the survey of recreation professionals. Responsive Management’s data-entry personnel have experience with conducting research about natural resources and outdoor recreation.

To ensure the integrity of the telephone survey data, Responsive Management has interviewers who have been trained according to the standards established by the Council of American Survey Research Organizations. Methods of instruction included lecture and role-playing. The Survey Center Managers and other professional staff conducted project briefings with the interviewers prior to the administration of the telephone survey. Interviewers were instructed on type of study, study goals and objectives, handling of survey questions, interview length, termination points and qualifiers for participation, interviewer instructions within the survey instrument, reading of the survey instrument, skip patterns, and probing and clarifying techniques necessary for specific questions on the survey instrument. The Survey Center Managers and statisticians monitored the data collection, including monitoring of the actual telephone interviews without the interviewers’ knowledge, to evaluate the performance of each interviewer and ensure the integrity of the data. After the surveys were obtained by the interviewers, the Survey Center Managers and/or statisticians checked each completed survey to ensure clarity and completeness.

Telephone interviews were conducted Monday through Friday from 9:00 a.m. to 9:00 p.m., Saturday from noon to 5:00 p.m., and Sunday from 5:00 p.m. to 9:00 p.m., local time. A five-callback design was used to maintain the representativeness of the sample, to avoid bias toward people easy to reach by telephone, and to provide an equal opportunity for all to participate.

When a respondent could not be reached on the first call, subsequent calls were placed on different days of the week and at different times of the day. As stated previously, both landlines and cellular telephones were called in the proportion in which these types of telephones are used in Missouri.

The multi-modal survey was conducted in November through December 2009; the telephone survey was conducted in November 2009. Responsive Management obtained a total of 349 completed questionnaires from parks and recreation professionals and 874 completed interviews with Missouri residents.

The software used for telephone interviewing and telephone survey data collection was Questionnaire Programming Language (QPL). The telephone survey data were entered into the computer as each interview was being conducted. The survey instrument was programmed so that QPL branched, coded, and substituted phrases in the survey based on previous responses to ensure the integrity and consistency of the data collection.

The analysis of data was performed using Statistical Package for the Social Sciences as well as proprietary software developed by Responsive Management. The results of the telephone survey were weighted by gender and age to ensure that the sample was properly proportioned to represent Missouri residents as a whole.

For this report, a nonparametric analysis of the data from the telephone survey of residents examined how various responses related to behavioral, participatory and demographic characteristics. Responses for selected questions in the telephone survey were tested by means of z-scores for relationships to behavioral, participatory, and demographic characteristics. The analysis examined more than 175 variables regarding characteristics of the respondents entailing approximately 16,000 calculations. A positive z-score means that the response and characteristic are positively related; a negative z-score means that the response and characteristic are negatively related.

The z-score shows the strength of the relationship between the characteristic and the response to the question. Those z-scores that have an absolute value of 3.30 or greater indicate a relationship that is so strong that it would happen by chance only 1 out of 1,000 times ($p \leq 0.001$). Those z-scores that have an absolute value of 2.58 to 3.29 indicate a relationship that is so strong that it would happen by chance only 1 out of 100 times ($p \leq 0.01$). Finally, those z-scores that have an absolute value of 1.96 to 2.57 indicate a relationship that is so strong that it would happen by chance only 5 out of 100 times ($p \leq 0.05$).

The z-scores were calculated as shown in the formula below.

$$z = \frac{(p_1 - p_2)}{\sqrt{p(1-p) \left[\frac{1}{n_1} + \frac{1}{n_2} \right]}}$$

where:

n_1 represents the number of observations in Group 1.

n_2 represents the number of observations in Group 2.

$p_1 = a/(a + b) = a/n_1$ and represents the proportion of observations in Group 1 that falls in Cell a . It is employed to estimate the population proportion Π_1 (% of Group 1 who had specific characteristic).

$p_2 = c/(c + d) = c/n_2$ and represents the proportion of observations in Group 2 that falls in Cell c . It is employed to estimate the population proportion Π_2 (% of Group 2 who had specific characteristic).

$p = (a + c)/(n_1 + n_2) = (a + c)/n$ and is a pooled estimate of the proportion of respondents who had specific characteristic in the underlying population.

(Equation from *Handbook of Parametric and Nonparametric Statistical Procedures*, 2nd Edition by David J. Sheskin. © 2000, Chapman & Hall/CRC, Boca Raton, FL.)

The characteristics examined in the nonparametric analysis of the telephone survey data are shown in the tabulation that starts on the following page.

Question from Resident Survey	Z-Score Run and Labels
13. Schools and education? (How important is this as a government expense?)	Says this is very important as a government expense: schools and education
	Does not indicate this is very important as a government expense: schools and education
14. Public safety, such as police and fire departments? (How important is this as a government expense?)	Says this is very important as a government expense: public safety, such as police and fire departments
	Does not indicate this is very important as a government expense: public safety, such as police and fire departments
15. Public works, such as roads and sewers? (How important is this as a government expense?)	Says this is very important as a government expense: public works, such as roads and sewers
	Does not indicate this is very important as a government expense: public works, such as roads and sewers
16. City and town beautification? (How important is this as a government expense?)	Says this is very important as a government expense: city and town beautification
	Does not indicate this is very important as a government expense: city and town beautification
17. Conservation of natural resources? (How important is this as a government expense?)	Says this is very important as a government expense: conservation of natural resources
	Does not indicate this is very important as a government expense: conservation of natural resources
18. Preservation of historic and cultural resources? (How important is this as a government expense?)	Says this is very important as a government expense: preservation of historic and cultural resources
	Does not indicate this is very important as a government expense: preservation of historic and cultural resources
19. Parks and open spaces? (How important is this as a government expense?)	Says this is very important as a government expense: parks and open spaces
	Does not indicate this is very important as a government expense: parks and open spaces
20. Affordable housing? (How important is this as a government expense?)	Says this is very important as a government expense: affordable housing
	Does not indicate this is very important as a government expense: affordable housing
21. Environmental protection? (How important is this as a government expense?)	Says this is very important as a government expense: environmental protection
	Does not indicate this is very important as a government expense: environmental protection
22. Communities connected by sidewalks and trails? (How important is this as a government expense?)	Says this is very important as a government expense: communities connected by sidewalks and trails
	Does not indicate this is very important as a government expense: communities connected by sidewalks and trails
23. Recreation, such as ball fields, swimming pools, and community centers? (How important is this as a government expense?)	Says this is very important as a government expense: recreation, such as ball fields, swimming pools, and community centers
	Does not indicate this is very important as a government expense: recreation, such as ball fields, swimming pools, and community centers
24. Social services, such as food, job training, and health care? (How important is this as a government expense?)	Says this is very important as a government expense: social services, such as food, job training, and health care
	Does not indicate this is very important as a government expense: social services, such as food, job training, and health care
25. Economic development? (How important is this as a government expense?)	Says this is very important as a government expense: economic development
	Does not indicate this is very important as a government expense: economic development

Question from Resident Survey	Z-Score Run and Labels
28. Schools and education? (How important is this to you personally for your overall quality of life?)	Says this is very important to him/her personally for overall quality of life: schools and education
	Does not indicate this is very important to him/her personally for overall quality of life: schools and education
29. Public safety, such as police and fire departments? (How important is this to you personally for your overall quality of life?)	Says this is very important to him/her personally for overall quality of life: public safety, such as police and fire departments
	Does not indicate this is very important to him/her personally for overall quality of life: public safety, such as police and fire departments
30. Public works, such as roads and sewers? (How important is this to you personally for your overall quality of life?)	Says this is very important to him/her personally for overall quality of life: public works, such as roads and sewers
	Does not indicate this is very important to him/her personally for overall quality of life: public works, such as roads and sewers
31. City and town beautification? (How important is this to you personally for your overall quality of life?)	Says this is very important to him/her personally for overall quality of life: city and town beautification
	Does not indicate this is very important to him/her personally for overall quality of life: city and town beautification
32. Conservation of natural resources? (How important is this to you personally for your overall quality of life?)	Says this is very important to him/her personally for overall quality of life: conservation of natural resources
	Does not indicate this is very important to him/her personally for overall quality of life: conservation of natural resources
33. Preservation of historic and cultural resources? (How important is this to you personally for your overall quality of life?)	Says this is very important to him/her personally for overall quality of life: preservation of historic and cultural resources
	Does not indicate this is very important to him/her personally for overall quality of life: preservation of historic and cultural resources
34. Parks and open spaces? (How important is this to you personally for your overall quality of life?)	Says this is very important to him/her personally for overall quality of life: parks and open spaces
	Does not indicate this is very important to him/her personally for overall quality of life: parks and open spaces
35. Affordable housing? (How important is this to you personally for your overall quality of life?)	Says this is very important to him/her personally for overall quality of life: affordable housing
	Does not indicate this is very important to him/her personally for overall quality of life: affordable housing
36. Environmental protection? (How important is this to you personally for your overall quality of life?)	Says this is very important to him/her personally for overall quality of life: environmental protection
	Does not indicate this is very important to him/her personally for overall quality of life: environmental protection
37. Communities connected by sidewalks and trails? (How important is this to you personally for your overall quality of life?)	Says this is very important to him/her personally for overall quality of life: communities connected by sidewalks and trails
	Does not indicate this is very important to him/her personally for overall quality of life: communities connected by sidewalks and trails
38. Recreation, such as ball fields, swimming pools, and community centers? (How important is this to you personally for your overall quality of life?)	Says this is very important to him/her personally for overall quality of life: recreation, such as ball fields, swimming pools, and community centers
	Does not indicate this is very important to him/her personally for overall quality of life: recreation, such as ball fields, swimming pools, and community centers
39. Social services, such as food, job training, and health care? (How important is this to you personally for your overall quality of life?)	Says this is very important to him/her personally for overall quality of life: social services, such as food, job training, and health care
	Does not indicate this is very important to him/her personally for overall quality of life: social services, such as food, job training, and health care

Question from Resident Survey	Z-Score Run and Labels
40. Economic development? (How important is this to you personally for your overall quality of life?)	Says this is very important to him/her personally for overall quality of life: economic development
	Does not indicate this is very important to him/her personally for overall quality of life: economic development
41. When it comes to recreational activities or things you do in your non-work time, would you say you're someone who mostly enjoys indoor recreational activities, outdoor recreational activities, or indoor and outdoor recreational activities equally?	Mostly enjoys indoor recreation
	Mostly enjoys outdoor recreation
	Enjoys both indoor and outdoor recreation about equally
42. Considering everything, do you find that you participate in these activities as much as you like?	Participates in his/her activities as much as he/she likes
	Does not indicate participating in his/her activities as much as he/she likes
44. Overall, how important are recreational activities or things you do in your non-work time to your overall quality of life?	Says recreational activities or things he/she does in his/her non-work time are very important to overall quality of life
	Does not indicate that recreational activities or things he/she does in his/her non-work time are very important to overall quality of life
47. What do you think of when you think of parks and recreation?	Thinks of parks when he/she thinks of parks and recreation
	Thinks of ball fields and leagues when he/she thinks of parks and recreation
	Thinks of playgrounds when he/she thinks of parks and recreation
	Thinks of hiking and trails when he/she thinks of parks and recreation
50. A national park or monument? (How often have you visited this in Missouri in the last 2 years?)	Has visited a national park or monument in Missouri frequently or sometimes in the past 2 years
	Does not indicate visiting a national park or monument in Missouri frequently or sometimes in the past 2 years
51. A state park? (How often have you visited this in Missouri in the last 2 years?)	Has visited a state park in Missouri frequently or sometimes in the past 2 years
	Does not indicate visiting a state park in Missouri frequently or sometimes in the past 2 years
52. A local park? (How often have you visited this in Missouri in the last 2 years?)	Has visited a local park in Missouri frequently or sometimes in the past 2 years
	Does not indicate visiting a local park in Missouri frequently or sometimes in the past 2 years
53. A local public recreation facility, including indoor and outdoor facilities, such as community centers, sports complexes, and aquatic complexes? (How often have you visited this in Missouri in the last 2 years?)	Has visited a local public recreation facility, including indoor and outdoor facilities, in Missouri frequently or sometimes in the past 2 years
	Does not indicate visiting a local public recreation facility, including indoor and outdoor facilities, in Missouri frequently or sometimes in the past 2 years
61. How many children, age 17 or younger, do you have living in your household?	Has children living at home
	Does not have children living at home [add don't know to this category]
68. How important do you think it is for government to spend tax dollars on the provision of parks and recreation services for children?	Says it is very important that the government spend tax dollars on the provision of parks and recreation services for children
	Does not indicate that it is very important that the government spend tax dollars on the provision of parks and recreation services for children

Question from Resident Survey	Z-Score Run and Labels
72. Health and fitness? (How important is this as a possible benefit of parks and recreation activities?)	Says health and fitness is very or somewhat important as a possible benefit of parks and recreation activities
	Does not indicate that health and fitness is very or somewhat important as a possible benefit of parks and recreation activities
73. Connections with nature? (How important is this as a possible benefit of parks and recreation activities?)	Says connecting with nature is very or somewhat important as a possible benefit of parks and recreation activities
	Does not indicate that connecting with nature is very or somewhat important as a possible benefit of parks and recreation activities
74. A sense of peace and stress relief? (How important is this as a possible benefit of parks and recreation activities?)	Says a sense of peace/stress relief is very or somewhat important as a possible benefit of parks and recreation activities
	Does not indicate that a sense of peace/stress relief is very or somewhat important as a possible benefit of parks and recreation activities
75. Opportunities for play and competition? (How important is this as a possible benefit of parks and recreation activities?)	Says opportunities for play and competition are very or somewhat important as a possible benefit of parks and recreation activities
	Does not indicate that opportunities for play and competition are very or somewhat important as a possible benefit of parks and recreation activities
76. Positive family activities? (How important is this as a possible benefit of parks and recreation activities?)	Says positive family activities are very or somewhat important as a possible benefit of parks and recreation activities
	Does not indicate that positive family activities are very or somewhat important as a possible benefit of parks and recreation activities
77. Healthy childhood development? (How important is this as a possible benefit of parks and recreation activities?)	Says healthy childhood development is very or somewhat important as a possible benefit of parks and recreation activities
	Does not indicate that healthy childhood development is very or somewhat important as a possible benefit of parks and recreation activities
78. Providing cultural awareness? (How important is this as a possible benefit of parks and recreation activities?)	Says providing cultural awareness is very or somewhat important as a possible benefit of parks and recreation activities
	Does not indicate that providing cultural awareness is very or somewhat important as a possible benefit of parks and recreation activities
79. Opportunities to be with people? (How important is this as a possible benefit of parks and recreation activities?)	Says opportunities to be with people are very or somewhat important as a possible benefit of parks and recreation activities
	Does not indicate that opportunities to be with people are very or somewhat important as a possible benefit of parks and recreation activities
80. Attracting businesses? (How important is this as a possible benefit of parks and recreation activities?)	Says attracting businesses is very or somewhat important as a possible benefit of parks and recreation activities
	Does not indicate that attracting businesses is very or somewhat important as a possible benefit of parks and recreation activities
81. Promoting tourism? (How important is this as a possible benefit of parks and recreation activities?)	Says promoting tourism is very or somewhat important as a possible benefit of parks and recreation activities
	Does not indicate that promoting tourism is very or somewhat important as a possible benefit of parks and recreation activities
82. Enhancing property values? (How important is this as a possible benefit of parks and recreation activities?)	Says enhancing property values is very or somewhat important as a possible benefit of parks and recreation activities
	Does not indicate that enhancing property values is very or somewhat important as a possible benefit of parks and recreation activities
83. Providing employment opportunities? (How important is this as a possible benefit of parks and recreation activities?)	Says providing employment opportunities is very or somewhat important as a possible benefit of parks and recreation activities
	Does not indicate that providing employment opportunities is very or somewhat important as a possible benefit of parks and recreation activities
84. Preserving open space? (How important is this as a possible benefit of parks and recreation activities?)	Says preserving open space is very or somewhat important as a possible benefit of parks and recreation activities
	Does not indicate that preserving open space is very or somewhat important as a possible benefit of parks and recreation activities

Question from Resident Survey	Z-Score Run and Labels
85. Protecting natural and historic resources? (How important is this as a possible benefit of parks and recreation activities?)	Says protecting natural and historic resources is very or somewhat important as a possible benefit of parks and recreation activities
	Does not indicate that protecting natural and historic resources is very or somewhat important as a possible benefit of parks and recreation activities
86. Providing wildlife habitat? (How important is this as a possible benefit of parks and recreation activities?)	Says providing wildlife habitat is very or somewhat important as a possible benefit of parks and recreation activities
	Does not indicate that providing wildlife habitat is very or somewhat important as a possible benefit of parks and recreation activities
87. Cleaner air and water? (How important is this as a possible benefit of parks and recreation activities?)	Says cleaner air and water are very or somewhat important as a possible benefit of parks and recreation activities
	Does not indicate that cleaner air and water are very or somewhat important as a possible benefit of parks and recreation activities
88. If you were choosing a new residence, how important would it be to have parks and open space nearby?	Says it would be very important to have parks and open space nearby when choosing a new residence
	Does not indicate that it would be very important to have parks and open space nearby when choosing a new residence
89. How would you rate the overall quality of parks and recreation services in Missouri?	Rates the overall quality of parks and recreation services in Missouri as excellent or good
	Does not rate the overall quality of parks and recreation services in Missouri as excellent or good
90. How would you rate the availability of parks and recreation services in Missouri?	Rates the availability of parks and recreation services in Missouri as excellent or good
	Does not rate the availability of parks and recreation services in Missouri as excellent or good
91. How would you rate the overall quality of parks and recreation services in your community?	Rates the overall quality of parks and recreation services in his/her community as excellent or good
	Does not rate the overall quality of parks and recreation services in his/her community as excellent or good
92. How would you rate the availability of parks and recreation services in your community?	Rates the availability of parks and recreation services in his/her community as excellent or good
	Does not rate the availability of parks and recreation services in his/her community as excellent or good
93. How would you rate the overall safety of the parks in your community?	Rates the overall safety of the parks in his/her community as excellent or good
	Does not rate the overall safety of the parks in his/her community as excellent or good
96. The Missouri Division of State Parks? (How would you rate the quality of services provided by this?)	Rates the quality of services provided by the Missouri Division of State Parks as excellent or good
	Does not rate the quality of services provided by the Missouri Division of State Parks as excellent or good
97. The National Park Service? (How would you rate the quality of services provided by this?)	Rates the quality of services provided by the National Park Service as excellent or good
	Does not rate the quality of services provided by the National Park Service as excellent or good
98. The U.S. Forest Service? (How would you rate the quality of services provided by this?)	Rates the quality of services provided by the U.S. Forest Service as excellent or good
	Does not rate the quality of services provided by the U.S. Forest Service as excellent or good
99. The U.S. Army Corps of Engineers? (How would you rate the quality of services provided by this?)	Rates the quality of services provided by the U.S. Army Corps of Engineers as excellent or good
	Does not rate the quality of services provided by the U.S. Army Corps of Engineers as excellent or good

Question from Resident Survey	Z-Score Run and Labels
100. The Missouri Department of Conservation? (How would you rate the quality of services provided by this?)	Rates the quality of services provided by the Missouri Department of Conservation as excellent or good
	Does not rate the quality of services provided by the Missouri Department of Conservation as excellent or good
101. Your city park and recreation agency? (How would you rate the quality of services provided by this?)	Rates the quality of services provided by his/her city park and recreation agency as excellent or good
	Does not rate the quality of services provided by his/her city park and recreation agency as excellent or good
102. Your county park and recreation agency? (How would you rate the quality of services provided by this?)	Rates the quality of services provided by his/her county park and recreation agency as excellent or good
	Does not rate the quality of services provided by his/her county park and recreation agency as excellent or good
103. The U.S. Fish and Wildlife Service? (How would you rate the quality of services provided by this?)	Rates the quality of services provided by the U.S. Fish and Wildlife Service as excellent or good
	Does not rate the quality of services provided by the U.S. Fish and Wildlife Service as excellent or good
106. Parks, recreation, and open space are important for people to improve and maintain good health. (Do you agree or disagree with this statement?)	Agrees that parks, recreation, and open space are important for people to improve and maintain good health
	Does not agree that parks, recreation, and open space are important for people to improve and maintain good health
107. Local communities in Missouri have a responsibility to preserve and maintain open space. (Do you agree or disagree with this statement?)	Agrees that local communities in Missouri have a responsibility to preserve and maintain open space
	Does not agree that local communities in Missouri have a responsibility to preserve and maintain open space
108. Missouri has a responsibility to preserve and maintain open space statewide. (Do you agree or disagree with this statement?)	Agrees that Missouri has a responsibility to preserve and maintain open space statewide
	Does not agree that Missouri has a responsibility to preserve and maintain open space statewide
109. Parks and open space increase property values in your community. (Do you agree or disagree with this statement?)	Agrees that parks and open space increase property values in his/her community
	Does not agree that parks and open space increase property values in his/her community
110. Parks and open space are important to your community's economy. (Do you agree or disagree with this statement?)	Agrees that parks and open space are important to his/her community's economy
	Does not agree that parks and open space are important to his/her community's economy
111. Parks, open spaces, greenways, and conservation areas should be budget priorities in your community even during economic hard times. (Do you agree or disagree with this statement?)	Agrees that parks, open spaces, greenways, and conservation areas should be budget priorities in his/her community even during economic hard times
	Does not agree that parks, open spaces, greenways, and conservation areas should be budget priorities in his/her community even during economic hard times
112. Parks, open spaces, greenways, and conservation areas are a luxury rather than a necessity. (Do you agree or disagree with this statement?)	Agrees that parks, open spaces, greenways, and conservation areas are a luxury rather than a necessity
	Does not agree that parks, open spaces, greenways, and conservation areas are a luxury rather than a necessity

Question from Resident Survey	Z-Score Run and Labels
113. Spending time in the outdoors leads to happier and healthier lives. (Do you agree or disagree with this statement?)	Agrees that spending time in the outdoors leads to happier and healthier lives
	Does not agree that spending time in the outdoors leads to happier and healthier lives
114. Public recreation programs are a luxury rather than a necessity. (Do you agree or disagree with this statement?)	Agrees that public recreation programs are a luxury rather than a necessity
	Does not agree that public recreation programs are a luxury rather than a necessity
116. Which county in Missouri do you live in?	(Analyzed by the four MPRA regions.*)
119. Do you consider your place of residence to be a large city or urban area, a suburban area, a small city or town, a rural area on a farm or ranch, or a rural area not on a farm or ranch?	Considers place of residence to be rural
	Considers place of residence to be small city or town
	Considers place of residence to be suburban area or large city/urban area
120. What is the highest level of education you have completed?	Highest education level is no higher than high school
	Highest education level is some college, but no bachelor's degree
	Highest education level is bachelor's degree or higher
123. What races or ethnic backgrounds do you consider yourself, and please mention all that apply?	Is white
	Is non-white
125. Which of these categories best describes your total household income before taxes last year?	Income is less than \$60,000
	Income is from \$60,000 to \$99,999
	Income is \$100,000 or more
126. May I ask your age?	Age is less than 35 years old
	Age is from 35 to 54 years old
	Age is 55 years old or older
133. Observe and record respondent's gender (not asked; observed by interviewer).	Is male
	Is female

* The regions for the nonparametric analysis are discussed and shown immediately at the end of this tabulation.

For the nonparametric analysis, the regional breakdown of the MPRA is used, as found on its website at <http://mopark.org/associations/9662/files/MAP-OF-REGIONS.jpg>. The state is divided into four regions, as shown in the map on the following page.

No sampling error was determined for the sample of parks and recreation professionals because the total population of parks and recreation professionals could not be determined.

Sampling Error Equation

$$B = \left(\sqrt{\frac{N_p(.25)}{N_s} - .25} \right) (1.96)$$

Where: B = maximum sampling error (as decimal)
 N_p = population size (i.e., total number who could be surveyed)
 N_s = sample size (i.e., total number of respondents surveyed)

Derived from formula: p. 206 in Dillman, D. A. 2000. *Mail and Internet Surveys*. John Wiley & Sons, NY.

Note: This is a simplified version of the formula that calculates the maximum sampling error using a 50:50 split (the most conservative calculation because a 50:50 split would give maximum variation).

Note that some results may not sum to exactly 100% because of rounding. Additionally, rounding on the graphs may cause apparent discrepancies of 1 percentage point between the graphs and the reported results of combined responses (e.g., when “strongly agree” and “agree” are summed to determine the total percentage in agreement).

PRIORITIES AND IMPORTANCE OF VARIOUS GOVERNMENTAL EFFORTS

- The survey asked about 13 governmental efforts, as shown in the text box below. For each effort, the survey asked residents to indicate if the effort was *very* important, *somewhat* important, *not very* important, or *not at all* important as a government expense. The survey randomized the beginning point in the series of questions for each respondent to minimize “order” bias (which refers to the influence a question can have on responses to subsequent questions). All of the individual questions were then ranked and analyzed relative to one another. The governmental efforts fall into four tiers when ranked by the percentage who say each effort is *very* important as a government expense.
- In the top tier are schools and education (85% say this is *very* important) and public safety, such as police and fire departments (81%).
 - The second tier consists of 5 of the 13 items, each with 60% or more saying it is *very* important: social services, such as food, job training, and health care (70%), public works, such as roads and sewers (67%), affordable housing (62%), environmental protection (62%), and conservation of natural resources (60%).
 - The third tier consists of economic development (54%), parks and open spaces (48%), recreation, such as ball fields, swimming pools, and community centers (42%), and preservation of historic and cultural resources (39%).
 - The bottom tier consists of communities connected by sidewalks and trails (26%) and city and town beautification (17%).

Governmental Efforts About Which the Survey Asked

Schools and education
 Public safety, such as police and fire departments
 Public works, such as roads and sewers
 City and town beautification
 Conservation of natural resources
 Preservation of historic and cultural resources
 Parks and open spaces
 Affordable housing
 Environmental protection
 Communities connected by sidewalks and trails
 Recreation, such as ball fields, swimming pools, and community centers
 Social services, such as food, job training, and health care
 Economic development

- An examination of the nonparametric analysis on six of the above governmental efforts in the survey of residents is discussed below. The six governmental efforts examined in detail are those that have the most pertinence to the MPRA: conservation of natural resources; preservation of historic and cultural resources; parks and open spaces; environmental protection; communities connected by sidewalks and trails; and recreation, such as ball fields, swimming pools, and community centers. How residents' opinions on these six governmental efforts relate to opinions on the other governmental efforts, on the perceived benefits of parks and recreation activities, and on agreement/disagreement with the value statements that were read to respondents are shown in three tabulations that follow this discussion.
- In addition to the correlations shown in the tabulations that follow, those residents who say that **conservation of natural resources** is *very* important as a government expense show the following correlations:
 - Saying that recreational activities/things he/she does in non-work time are very important to his/her quality of life ($p \leq 0.001$).
 - Saying that it is very important that the government spend tax dollars on the provision of parks and recreation services to children ($p \leq 0.001$).
 - Rating the overall quality of parks and recreation services in Missouri as excellent or good ($p \leq 0.05$); rating the quality of services provided by the U.S. Fish and Wildlife Service as excellent or good ($p \leq 0.05$).
 - Having visited a national park or monument in Missouri frequently or sometimes in the past 2 years ($p \leq 0.01$).
 - Being non-white ($p \leq 0.05$); being younger than 35 years of age ($p \leq 0.05$).
 - In addition to the correlations shown in the tabulations that follow, those residents who say that **preservation of historic and cultural resources** is *very* important as a government expense show the following correlations:
 - Saying that recreational activities/things he/she does in non-work time are very important to his/her quality of life ($p \leq 0.001$).
 - Saying that it is very important that the government spend tax dollars on the provision of parks and recreation services to children ($p \leq 0.001$).

- Rating the quality of services provided by his/her county park and recreation agency ($p \leq 0.05$), by the Missouri Department of Conservation ($p \leq 0.05$), by the U.S. Fish and Wildlife Service ($p \leq 0.05$), and/or by the National Park Service ($p \leq 0.05$) as excellent or good.
- Mostly enjoying outdoor recreation ($p \leq 0.05$); having visited a national park or monument ($p \leq 0.01$), a state park ($p \leq 0.05$), and/or a local park ($p \leq 0.05$) in Missouri frequently or sometimes in the past 2 years.
- Being non-white ($p \leq 0.05$), living in Region 4 ($p \leq 0.05$), being younger than 35 years of age ($p \leq 0.05$).
- In addition to the correlations shown in the tabulations that follow, those residents who say that **parks/open space** is *very* important as a government expense show the following correlations:
 - Saying that recreational activities/things he/she does in non-work time are very important to his/her quality of life ($p \leq 0.001$).
 - Saying that it is very important that the government spend tax dollars on the provision of parks and recreation services to children ($p \leq 0.001$).
 - Rating the quality of services provided by his/her county park and recreation agency ($p \leq 0.01$), his/her city park and recreation agency ($p \leq 0.01$), the National Park Service ($p \leq 0.01$), and/or the Missouri Department of Conservation ($p \leq 0.01$) as excellent or good.
 - Having visited a local park ($p \leq 0.001$), a national park or monument ($p \leq 0.05$), a state park ($p \leq 0.05$), and/or a local public recreation facility ($p \leq 0.05$) in Missouri frequently or sometimes in the past 2 years.
 - Having a household income of less than \$60,000 ($p \leq 0.05$).
- In addition to the correlations shown in the tabulations that follow, those residents who say that **environmental protection** is *very* important as a government expense show the following correlations:
 - Saying that recreational activities/things he/she does in non-work time are very important to his/her quality of life ($p \leq 0.001$).
 - Saying that it is very important that the government spend tax dollars on the provision of parks and recreation services to children ($p \leq 0.001$).

- Rating the quality of services provided by the National Park Service as excellent or good ($p \leq 0.05$).
- (There were no visitation correlations.)
- Being non-white ($p \leq 0.001$), considering place of residence to be a suburban area or large city/urban area ($p \leq 0.05$), being female ($p \leq 0.05$), having an educational level of no higher than high school ($p \leq 0.05$), living in Region 4 ($p \leq 0.05$), having a household income of less than \$60,000 ($p \leq 0.05$).
- In addition to the correlations shown in the tabulations that follow, those residents who say that **communities connected by sidewalks and trails** is *very* important as a government expense show the following correlations:
 - Saying that recreational activities/things he/she does in non-work time are very important to his/her quality of life ($p \leq 0.001$).
 - Saying that it is very important that the government spend tax dollars on the provision of parks and recreation services to children ($p \leq 0.001$).
 - *Not* rating the overall safety of the parks in his/her community as excellent or good ($p \leq 0.01$).
 - Enjoying both indoor and outdoor recreation about equally ($p \leq 0.05$); having visited a local park ($p \leq 0.01$) and/or a national park or monument ($p \leq 0.05$) in Missouri frequently or sometimes in the past 2 years.
 - Being non-white ($p \leq 0.001$), having a household income of less than \$60,000 ($p \leq 0.01$), being younger than 35 years of age ($p \leq 0.05$), having children living in household ($p \leq 0.05$).
- In addition to the correlations shown in the tabulations that follow, those residents who say that **recreation, such as ball fields, swimming pools, and community centers**, is *very* important as a government expense show the following correlations:
 - Saying that recreational activities/things he/she does in non-work time are very important to his/her quality of life ($p \leq 0.001$).
 - Saying that it is very important that the government spend tax dollars on the provision of parks and recreation services to children ($p \leq 0.001$).
 - Rating the quality of services provided by his/her county park and recreation agency as excellent or good ($p \leq 0.05$).

- Enjoying both indoor and outdoor recreation about equally ($p \leq 0.05$); having visited a local park ($p \leq 0.001$), a local public recreation facility ($p \leq 0.001$), and/or a national park or monument ($p \leq 0.001$) in Missouri frequently or sometimes in the past 2 years.
 - Being non-white ($p \leq 0.01$), being younger than 35 years of age ($p \leq 0.01$).
- As stated previously, the nonparametric analysis of residents' opinions on the six governmental efforts discussed above also found correlations to the other governmental efforts, to the perceived benefits of parks and recreation activities, and to agreement/disagreement with the value statements that were read to respondents. In the three tabulations that follow, the number of asterisks indicate the strength of the correlation: three asterisks indicate a relationship that is so strong that it would happen by chance only 1 out of 1,000 times ($p \leq 0.001$); two asterisks indicate a relationship that is so strong that it would happen by chance only 1 out of 100 times ($p \leq 0.01$); and one asterisk indicates a relationship that is so strong that it would happen by chance only 5 out of 100 times ($p \leq 0.05$). These tabulations start on the next page.

- The first tabulation shows the correlations (among residents) between saying that the government efforts are *very* important and saying that the other governmental efforts are very important as government expenses and are very important to the respondent personally for his/her quality of life.
- How to read the table: Saying that the conservation of natural resources is *very* important as a government expense is positively correlated to saying that all of the other governmental efforts are very important as government expenses. Furthermore, saying that the conservation of natural resources is *very* important as a government expense is positively correlated to saying that all of the other governmental efforts are very important to the respondent personally for his/her quality of life.
 - Note that all of the correlations in this table have the same level of significance ($p < 0.001$), which is shown by three asterisks, with the exception of one, shown with two asterisks: Saying that communities connected by sidewalks and trails is very important as a government expense is correlated to saying that schools and education is very important to the respondent personally for his/her quality of life ($p < 0.01$).

Governmental Efforts Correlations

	Conservation of natural resources		Preservation of historic and cultural resources		Parks and open space		Environmental protection		Communities connected by sidewalks and trails		Recreation, such as ball fields, swimming pools, and community centers	
	e	p	e	p	e	p	e	p	e	p	e	p
Schools and education	***	***	***	***	***	***	***	***	***	**	***	***
Public safety, such as police and fire departments	***	***	***	***	***	***	***	***	***	***	***	***
Public works, such as roads and sewers	***	***	***	***	***	***	***	***	***	***	***	***
City and town beautification	***	***	***	***	***	***	***	***	***	***	***	***
Conservation of natural resources	na	***	***	***	***	***	***	***	***	***	***	***
Preservation of historic and cultural resources	***	***	na	***	***	***	***	***	***	***	***	***
Parks and open spaces	***	***	***	***	na	***	***	***	***	***	***	***
Affordable housing	***	***	***	***	***	***	***	***	***	***	***	***
Environmental protection	***	***	***	***	***	***	na	***	***	***	***	***
Communities connected by sidewalks and trails	***	***	***	***	***	***	***	***	na	***	***	***
Recreation, such as ball fields, swimming pools, and community centers	***	***	***	***	***	***	***	***	***	***	na	***
Social services, such as food, job training, and health care	***	***	***	***	***	***	***	***	***	***	***	***
Economic development	***	***	***	***	***	***	***	***	***	***	***	***

*** = ($p \leq 0.001$)** = ($p \leq 0.01$)* = ($p \leq 0.05$)

- The second tabulation shows the correlations (among residents) between saying that the governmental efforts are *very* important and perceiving the benefits of parks and recreation activities to be *very* or *somewhat* important.
- How to read the table: Saying that the conservation of natural resources is *very* important as a government expense is positively correlated to saying that health/fitness is a very or somewhat important benefit of parks and recreation activities ($p \leq 0.05$), to saying that connecting with nature is a very or somewhat important benefit of parks and recreation activities ($p \leq 0.001$), to saying that a sense of peace/ stress relief is a very or somewhat important benefit of parks and recreation activities ($p \leq 0.001$), but not to saying that opportunities for play and competition is a very or somewhat important benefit of parks and recreation activities (because that cell in the table is blank), and so on.

Benefits Correlations

	Conservation of natural resources	Preservation of historic and cultural resources	Parks and open space	Environmental protection	Communities connected by sidewalks and trails	Recreation, such as ball fields, swimming pools, and community centers
Health and fitness	*	***	***	*	***	***
Connecting with nature	***		***	**	**	*
A sense of peace and stress relief	***	***	***	***	**	***
Opportunities for play and competition		**	**	**	*	***
Positive family activities		*	*		*	*
Healthy childhood development	*		***	***	*	
Providing cultural awareness	***	***	***	***	***	***
Opportunities to be with people		***	**	***	**	***
Attracting businesses		*	**	***	***	***
Promoting tourism		**	**	*		**
Enhancing property values			*	*	*	
Providing employment opportunities	*	**			**	**
Preserving open space	***		***	***	**	**
Protecting natural and historic resources	**	***	**	***	*	***
Providing wildlife habitat	***	*	**	***	*	
Cleaner air and water	***			***	*	

*** = ($p \leq 0.001$)

** = ($p \leq 0.01$)

* = ($p \leq 0.05$)

- The third tabulation in this section shows the correlations (among residents) between saying that the governmental efforts are *very* important as government expenses and *strongly* or *moderately* agreeing or not agreeing (not agreeing includes *disagreeing* as well as neutral statements and “don’t know”) with the value statements.
- How to read the table: Saying that the conservation of natural resources is *very* important as a government expense is positively correlated to agreeing with the statements in the first six rows (all at $p \leq 0.001$), to not agreeing with the statement in the seventh row ($p \leq 0.01$), and to not agreeing with the statement in the last row ($p \leq 0.01$). There is no correlation to the eighth statement, for which the cell is blank.

Agreement/Disagreement Correlations

	Conservation of natural resources	Preservation of historic and cultural resources	Parks and open space	Environmental protection	Communities connected by sidewalks and trails	Recreation, such as ball fields, swimming pools, and community centers
Parks, recreation, and open space are important for people to improve and maintain good health.	Agrees ***	Agrees ***	Agrees ***	Agrees ***	Agrees ***	Agrees ***
Local communities in Missouri have a responsibility to preserve and maintain open space.	Agrees ***		Agrees ***	Agrees ***		
Missouri has a responsibility to preserve and maintain open space statewide.	Agrees ***	Agrees *	Agrees ***	Agrees ***	Agrees *	Agrees **
Parks and open space increase property values in your community.	Agrees ***	Agrees **	Agrees ***	Agrees *	Agrees ***	Agrees **
Parks and open space are important to your community's economy.	Agrees ***	Agrees ***	Agrees ***	Agrees ***	Agrees ***	Agrees ***
Parks, open spaces, greenways, and conservation areas should be budget priorities in your community even during economic hard times.	Agrees ***	Agrees ***	Agrees ***	Agrees ***	Agrees ***	Agrees ***
Parks, open spaces, greenways, and conservation areas are a luxury rather than a necessity.	Does not agree ***	Does not agree ***	Does not agree ***	Does not agree ***		
Spending time in the outdoors leads to happier and healthier lives.			Agrees *	Agrees *		Agrees **
Public recreation programs are a luxury rather than a necessity.	Does not agree **	Does not agree *	Does not agree *	Does not agree ***	Does not agree *	Does not agree **

*** = ($p \leq 0.001$)

** = ($p \leq 0.01$)

* = ($p \leq 0.05$)

- Professionals were also asked to rate the importance of the 13 governmental efforts. All of the individual questions were then ranked and analyzed relative to one another. The list of governmental efforts can be placed into four tiers when ranked by the percentage who say each effort is *very* important as a government expense.
 - In the top tier are schools and education (90% say this is *very* important), public safety, such as police and fire departments (89%), and public works, such as roads and sewers (78%).
 - The second tier consists of 3 of the 13 items, each with between 50% and 60% saying it is *very* important: parks and open spaces (58%), environmental protection (53%), and conservation of natural resources (52%).
 - The third tier consists of recreation, such as ball fields, swimming pools, and community centers (44%), economic development (40%), and social services, such as food, job training, and health care (33%).
 - The bottom tier consists of communities connected by sidewalks and trails (29%), affordable housing (25%), preservation of historic and cultural resources (24%), and city and town beautification (20%).
- The tabulation on the following page shows the *very* important ratings among residents and professionals as well as the ranking. The most marked differences between residents' ratings and professionals' ratings are for the following:
 - Parks and open space (48% of residents rate it *very* important, ranked 9th; 58% of professionals, ranked 4th).
 - Affordable housing (62% among residents, ranked 5th; 25% among professionals, ranked 11th).
 - Social services (70% among residents, ranked 3rd; 33% among professionals, ranked 9th).

Governmental Efforts	Percent rating as very important as government expenses (and rank)	
	Residents	Professionals
Schools and education	85 (1)	90 (1)
Public safety, such as police and fire departments	81 (2)	89 (2)
Public works, such as roads and sewers	67 (4)	78 (3)
City and town beautification	17 (14)	20 (13)
Conservation of natural resources	60 (7)	52 (6)
Preservation of historic and cultural resources	39 (11)	24 (12)
Parks and open spaces	48 (9)	58 (4)
Affordable housing	62 (5 t)	25 (11)
Environmental protection	62 (5 t)	53 (5)
Communities connected by sidewalks and trails	26 (12)	29 (10)
Recreation, such as ball fields, swimming pools, and community centers	42 (10)	44 (7)
Social services, such as food, job training, and health care	70 (3)	33 (9)
Economic development	54 (8)	40 (8)

- The survey also asked residents about the importance of government spending on the provision of parks and recreation services for children. An overwhelming majority of Missouri residents (92%) say that this is *very* or *somewhat* important; only 7% say that it is *not very* or *not at all* important. Note that the results (54% rated this *very* important) would put it in the third tier of priorities for government spending in the series of questions discussed immediately above.
- Professionals almost unanimously think that it is *very* or *somewhat* important for the government to spend tax dollars on the provision of parks and recreation services for children (97% think so, with 69% saying it is *very* important).
 - The nonparametric analysis found that those residents who say that it is *very* important that the government spend tax dollars on the provision of parks and recreation services for children have the following correlations:
 - Rating all of the governmental efforts asked about in the survey as *very* important as government expenses and to them personally for their quality of life (all at $p \leq 0.001$).
 - Saying that recreational activities/things he/she does in non-work time are very important to his/her quality of life ($p \leq 0.001$).
 - Rating the overall safety of parks in his/her community as excellent or good ($p \leq 0.05$); rating the quality of services provided by his/her county park and recreation agency ($p \leq 0.001$), the National Park Service ($p \leq 0.001$), the Missouri

- Division of State Parks ($p \leq 0.01$), the U.S. Fish and Wildlife Service ($p \leq 0.01$), the U.S. Army Corps of Engineers ($p \leq 0.01$), his/her city park and recreation agency ($p \leq 0.01$), the U.S. Forest Service ($p \leq 0.05$), and/or the Missouri Department of Conservation ($p \leq 0.05$) as excellent or good.
- Having visited a national park or monument ($p \leq 0.001$), a local park ($p \leq 0.001$), a state park ($p \leq 0.01$), and/or a local public recreation facility ($p \leq 0.05$) in Missouri frequently or sometimes in the past 2 years.
 - Being non-white ($p \leq 0.01$), considering place of residence to be a suburban area or large city/urban area ($p \leq 0.01$), living in Region 1 ($p \leq 0.05$), living in Region 4 ($p \leq 0.05$).
- The survey asked residents who have children living in their household if they would like to make educating their children about nature and the outdoors a higher priority, about the same level of priority, or a lower priority. They are about evenly split between saying that they would like to make it a higher priority (50%) or would like to keep it about the same priority (46%); a low percentage would like to make it a lower priority (1%).
- Professionals who have children were also asked this question, with similar results: 54% would like to make it a higher priority, and 43% would like to keep it about the same priority; only 1% would like to make it a lower priority.
- The survey asked residents about those same 13 governmental efforts previously listed, but asked them how important each *personally* is to their *quality of life*, using the same scale that was previously used (*very* important, *somewhat* important, *not very* important, or *not at all* important). The survey randomized the beginning point in the series of questions for each respondent to minimize order bias. All of the individual questions were then ranked and analyzed relative to one another. The governmental efforts fall into four tiers when ranked by the percentage who say each effort is *very* important to them personally.
- In the top tier are schools and education (78% say this is *very* important) and public safety, such as police and fire departments (77%).
 - The second tier consists of 5 of the 13 items, each with from 50% to 60% saying it is *very* important: environmental protection (59%), public works, such as roads and sewers

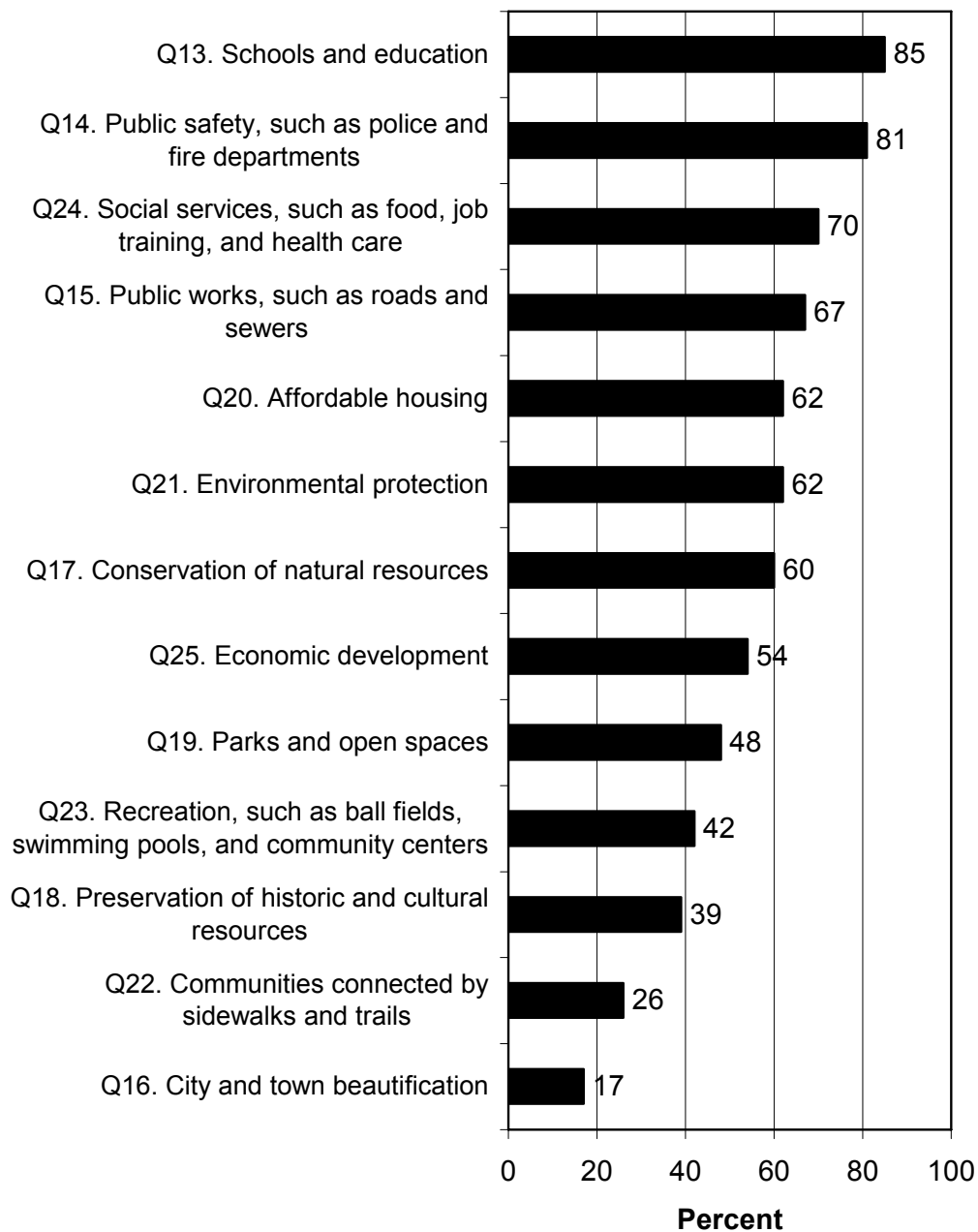
- (57%), conservation of natural resources (56%), affordable housing (56%), and social services, such as food, job training, and health care (54%).
- The third tier consists of parks and open spaces (47%), economic development (47%), preservation of historic and cultural resources (37%), and recreation, such as ball fields, swimming pools, and community centers (35%).
 - The bottom tier consists of communities connected by sidewalks and trails (25%) and city and town beautification (19%).
- For the residents' survey, an examination of how the governmental efforts ranked in importance as government expenses versus how the governmental efforts ranked in importance to residents personally for their quality of life found only minor differences in the rankings. There was no difference in the tiers into which they fell.
- Professionals were also asked to rate the importance of the 13 governmental efforts to them personally for their quality of life. Again, the efforts can be grouped into four tiers.
- In the top tier are public safety, such as police and fire departments (76% say this is *very* important), schools and education (70%), and parks and open spaces (65%).
 - The second tier consists of public works, such as roads and sewers (57%), conservation of natural resources (53%), environmental protection (53%), and recreation, such as ball fields, swimming pools, and community centers (49%).
 - The third tier consists of economic development (35%) and communities connected by sidewalks and trails (30%).
 - The bottom tier consists of city and town beautification (23%), preservation of historic and cultural resources (23%), social services, such as food, job training, and health care (22%), and affordable housing (20%).
- For the professionals' survey, an examination of how the governmental efforts ranked in importance as government expenses versus how the governmental efforts ranked in importance to professionals personally for their quality of life found only minor differences in the rankings. Parks and open spaces moves up in the ranking in importance to them *personally*, as does recreation, when compared to importance *as government expenses*. On

the other hand, public works and social services move slightly down in relative importance to professionals *personally* when compared to importance *as government expenses*.

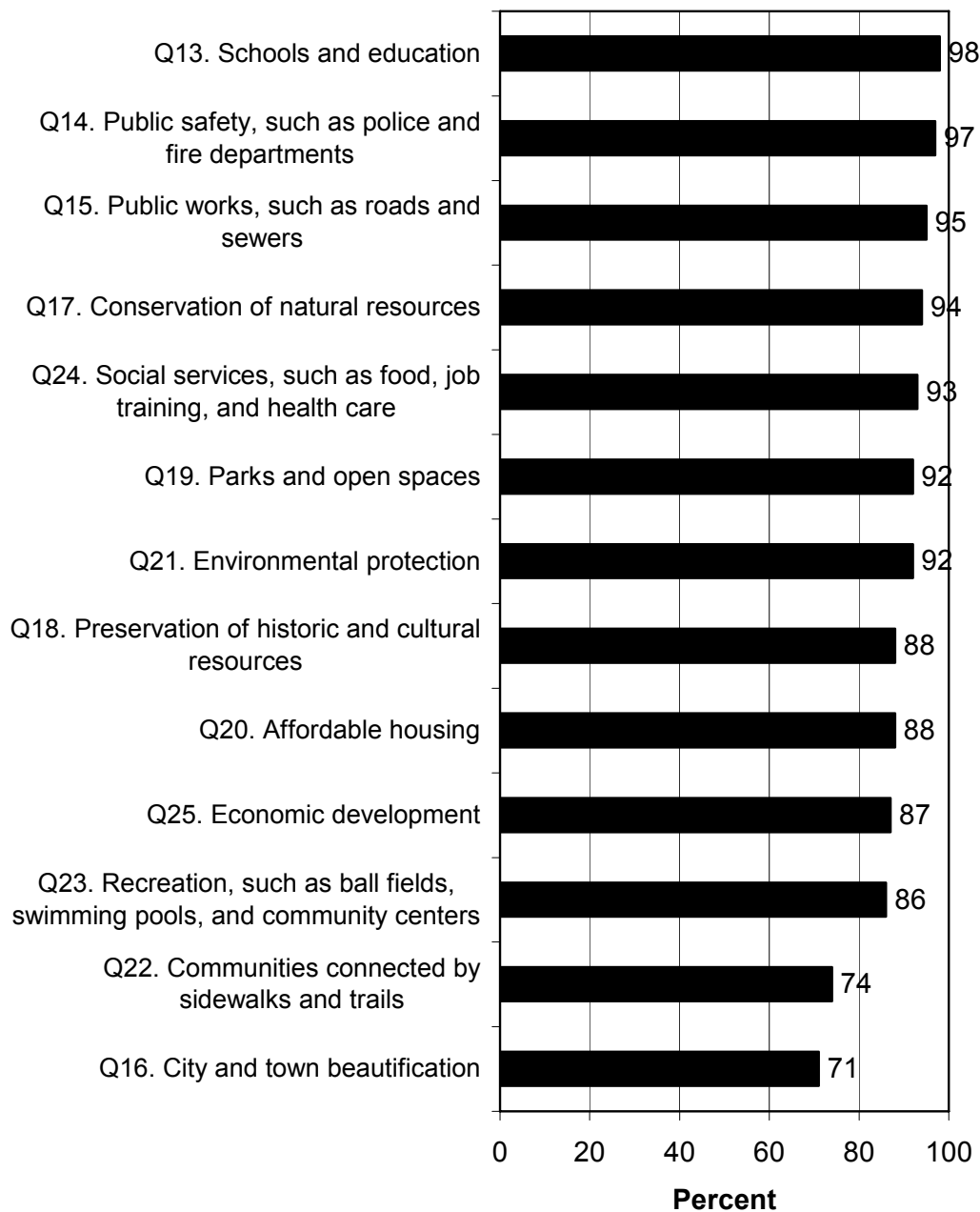
- The tabulation below shows the *very* important ratings among residents and professionals. When comparing residents' ratings to professionals' ratings of importance to them personally, the most marked differences between residents' ratings and professionals' ratings are for the following:
- Parks and open space (47% of residents rate it *very* important, ranked 8th; 65% of professionals, ranked 3rd).
 - Affordable housing (56% among residents, ranked 5th; 20% among professionals, ranked 13th).
 - Recreation, such as ball fields, swimming pools, and community centers (35% among residents, ranked 11th; 49% among professionals, ranked 7th).
 - Social services (54% among residents, ranked 7th; 22% among professionals, ranked 12th).
 - Economic development (47% among residents; 35% among professionals; the rank is the same).

Governmental Efforts	Percent rating as very important to them personally (and rank)	
	Residents	Professionals
Schools and education	78 (1)	70 (2)
Public safety, such as police and fire departments	77 (2)	76 (1)
Public works, such as roads and sewers	57 (4)	57 (4)
City and town beautification	19 (13)	23 (10 t)
Conservation of natural resources	56 (5 t)	53 (5 t)
Preservation of historic and cultural resources	37 (10)	23 (10 t)
Parks and open spaces	47 (8 t)	65 (3)
Affordable housing	56 (5 t)	20 (13)
Environmental protection	59 (3)	53 (5 t)
Communities connected by sidewalks and trails	25 (12)	30 (9)
Recreation, such as ball fields, swimming pools, and community centers	35 (11)	49 (7)
Social services, such as food, job training, and health care	54 (7)	22 (12)
Economic development	47 (8 t)	35 (8)

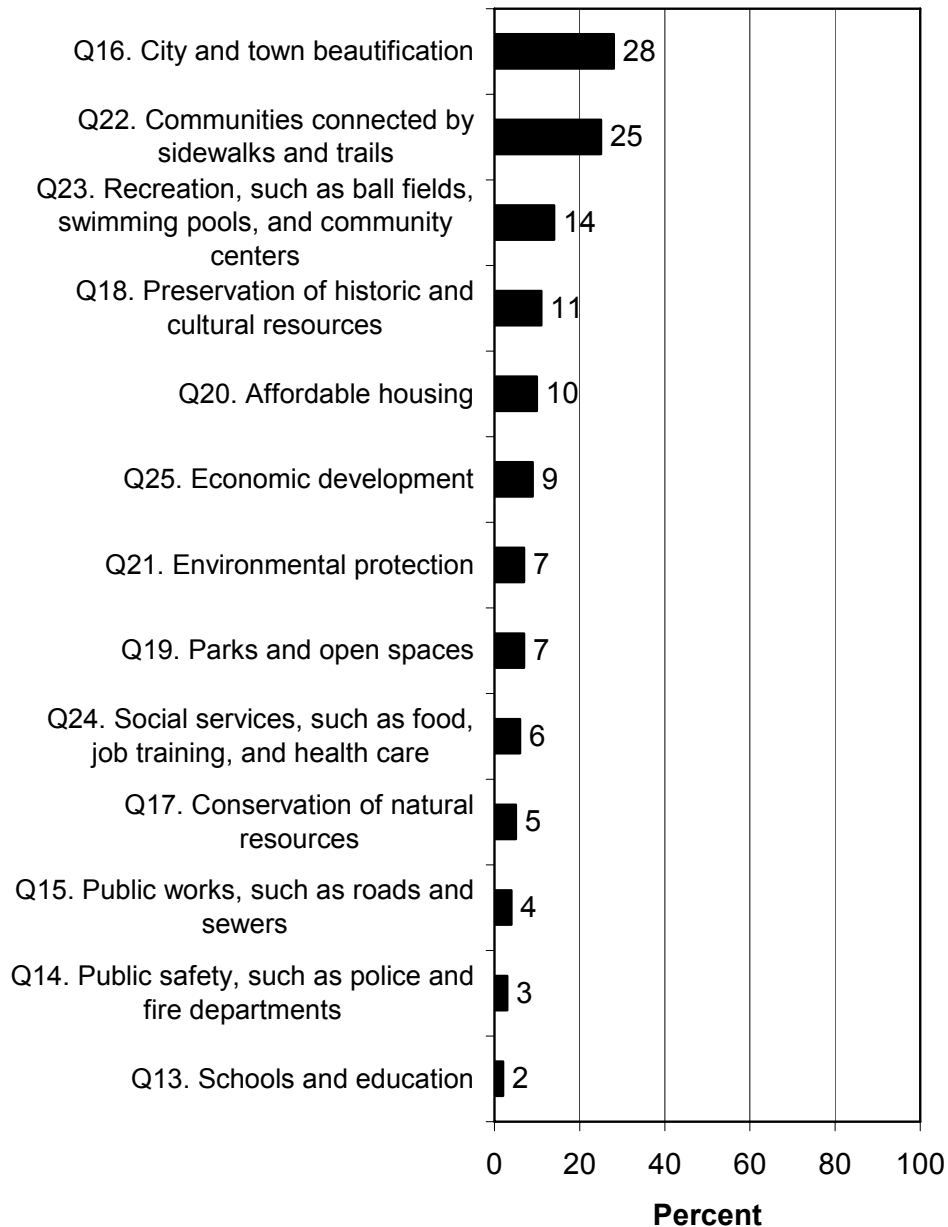
**Percent who indicated that the following are very important as a governmental expense.
(Missouri residents)**



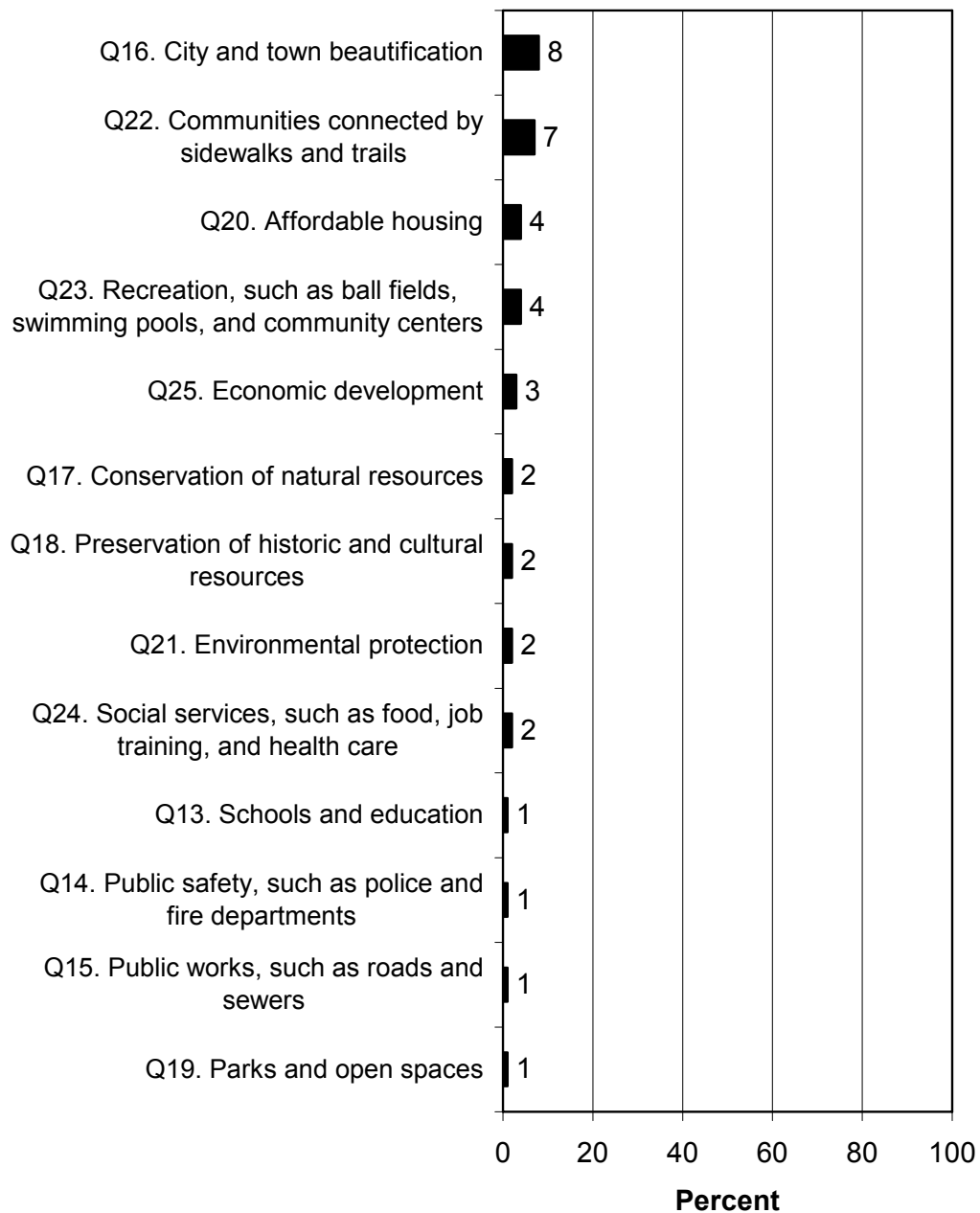
**Percent who indicated that the following are very or somewhat important as a governmental expense.
(Missouri residents)**



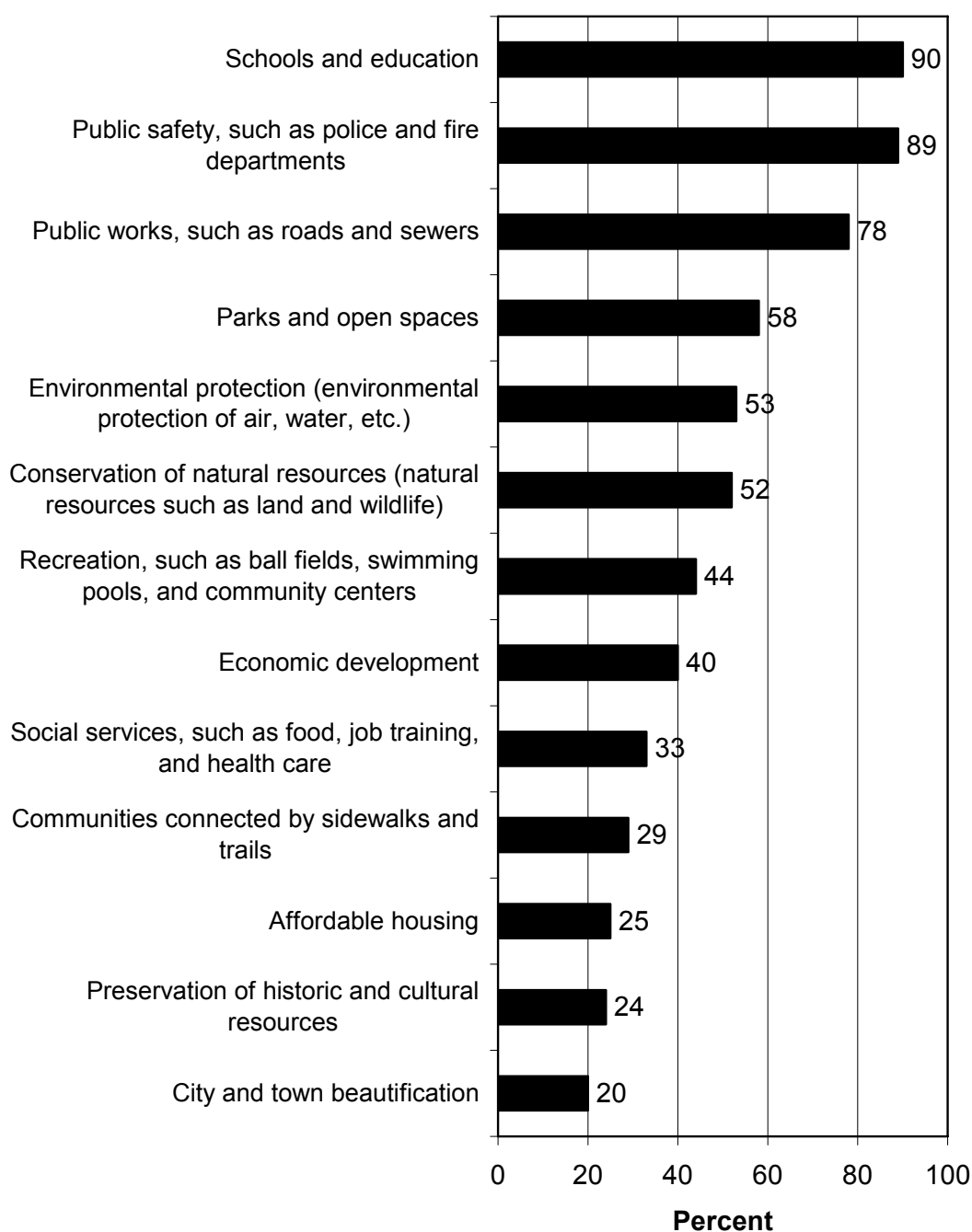
**Percent who indicated that the following are not
very important or not important at all as a
governmental expense.
(Missouri residents)**



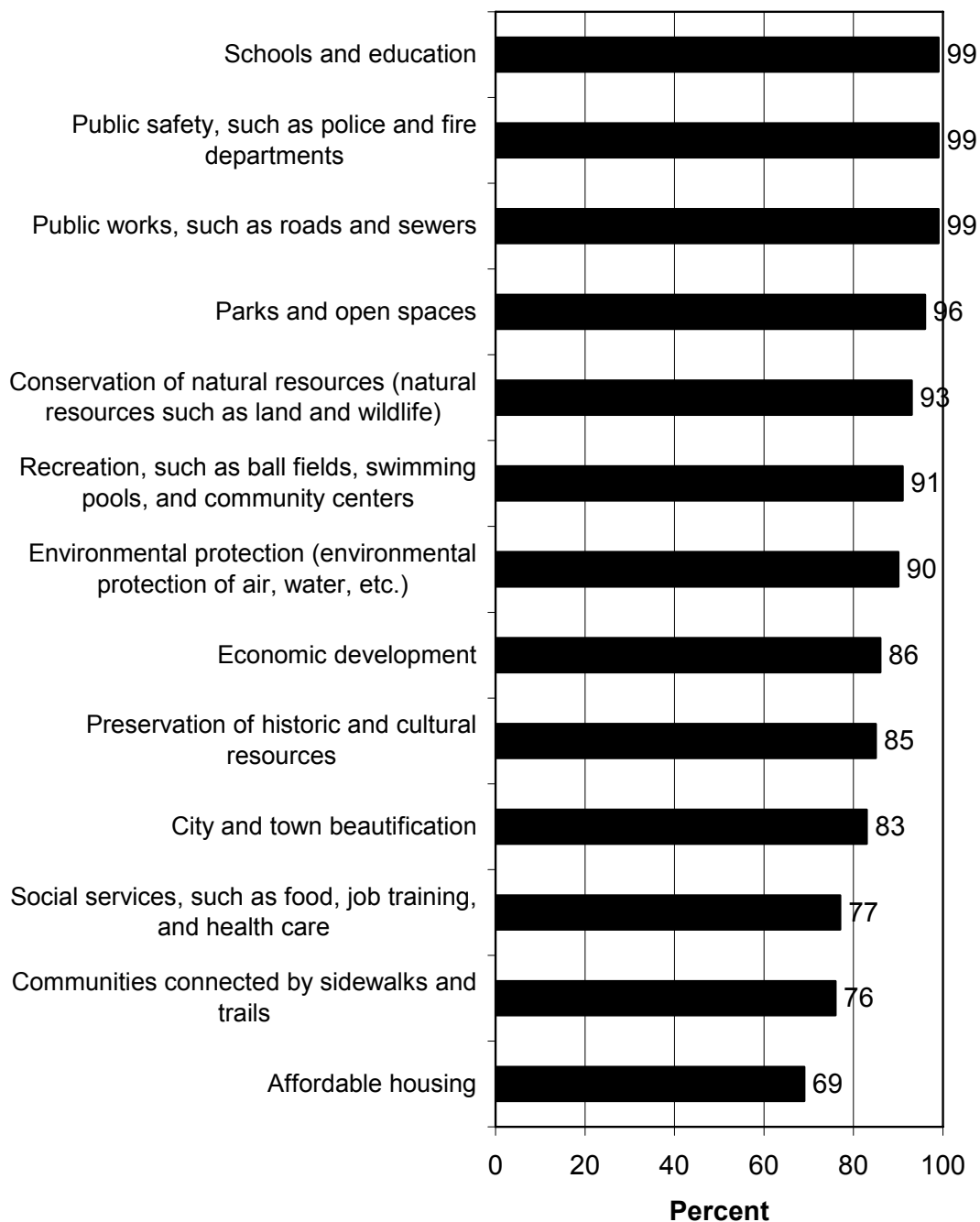
**Percent who indicated that the following are not important at all as a governmental expense.
(Missouri residents)**



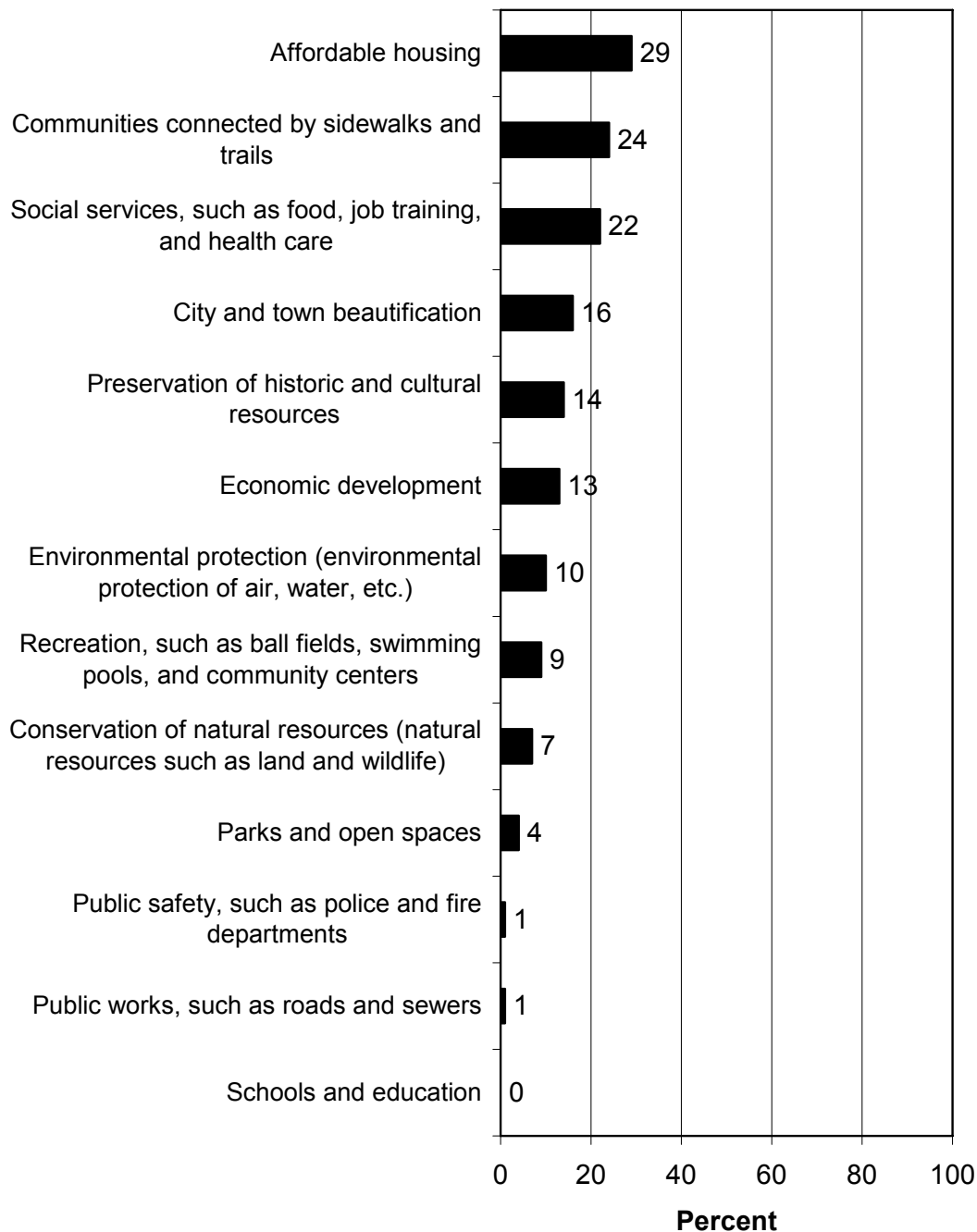
**Percent who indicated that the following are very important as a governmental expense.
(Professionals)**



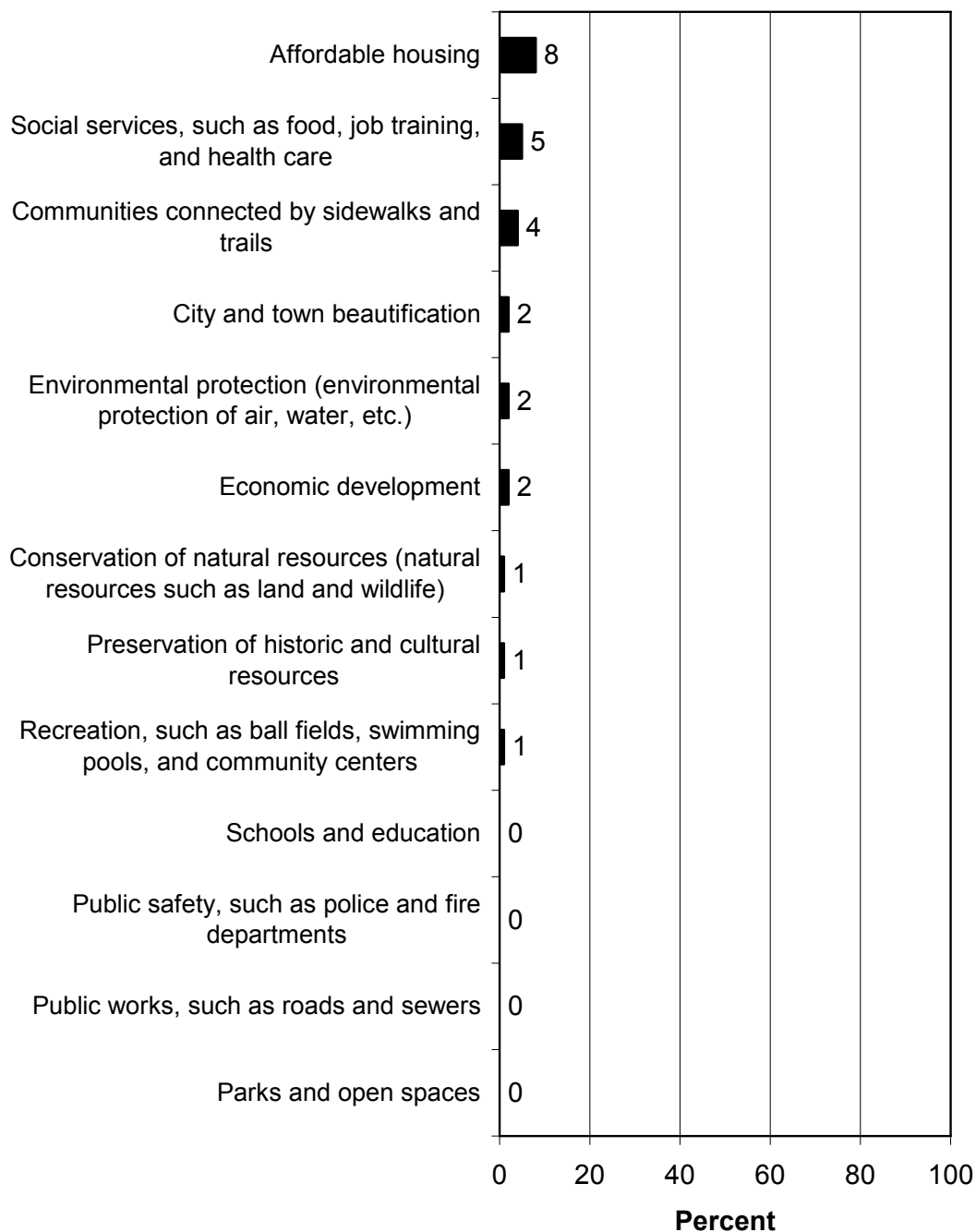
**Percent who indicated that the following are very or somewhat important as a governmental expense.
(Professionals)**



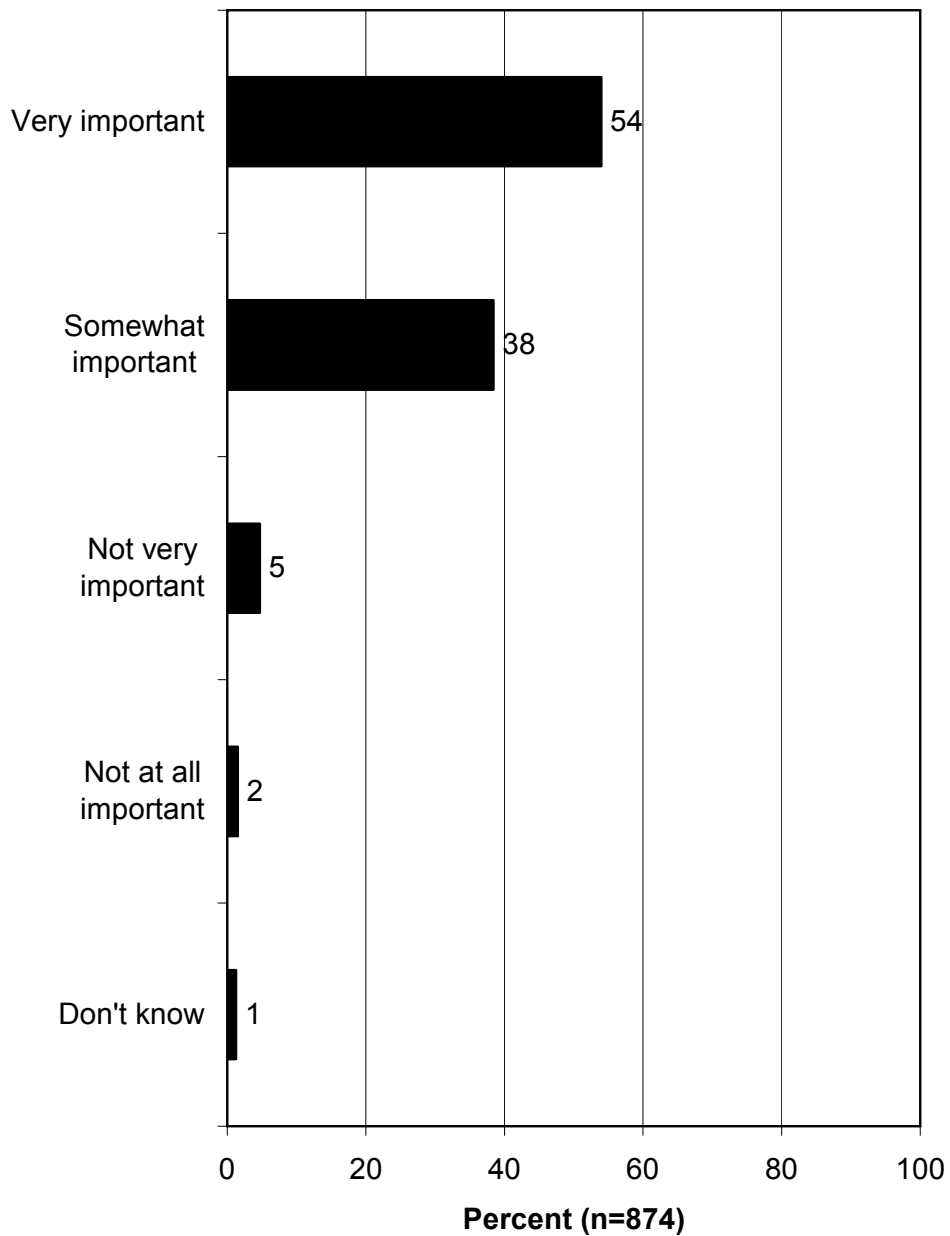
Percent who indicated that the following are not very important or not at all important as a governmental expense. (Professionals)



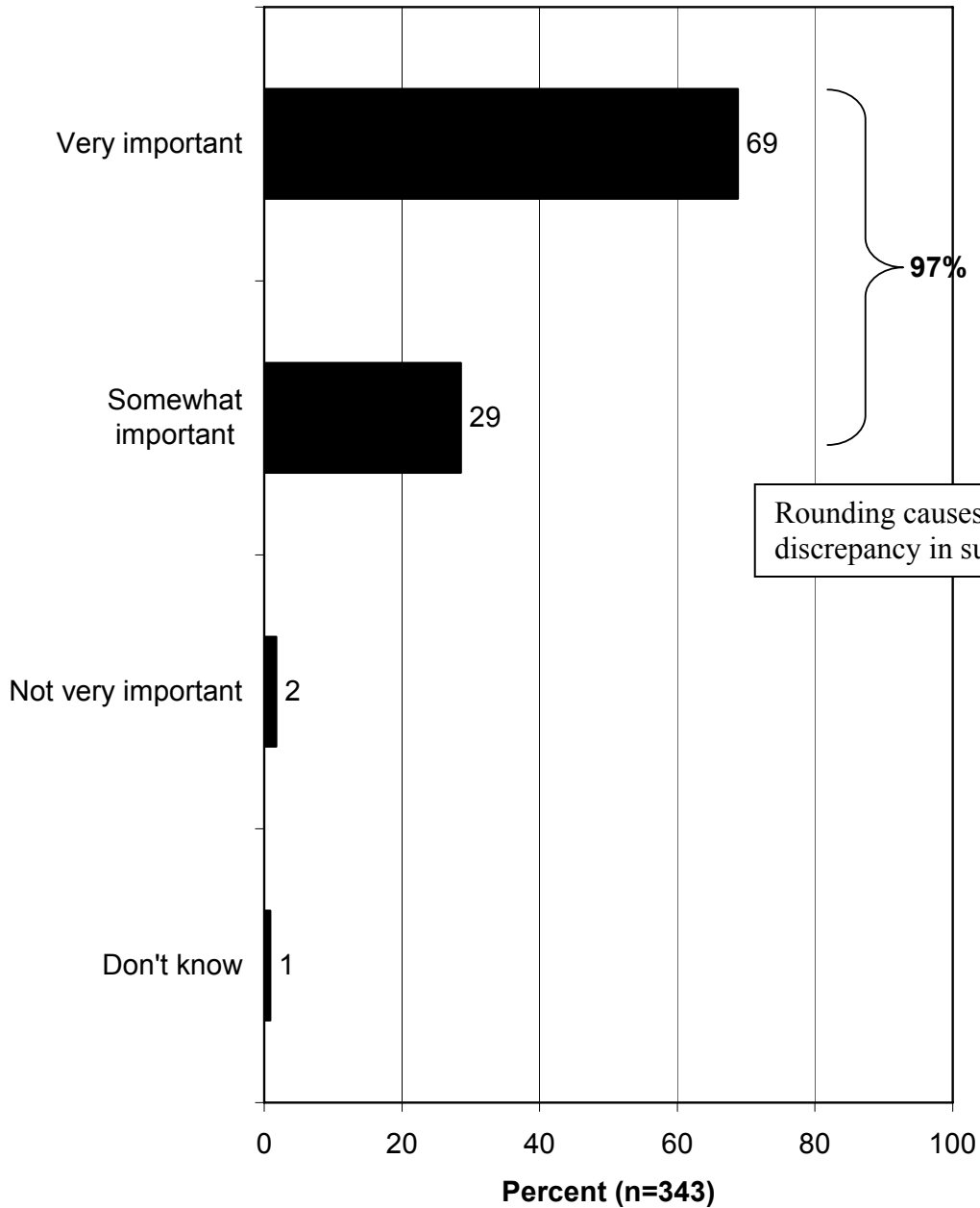
**Percent who indicated that the following are not at all important as a governmental expense.
(Professionals)**



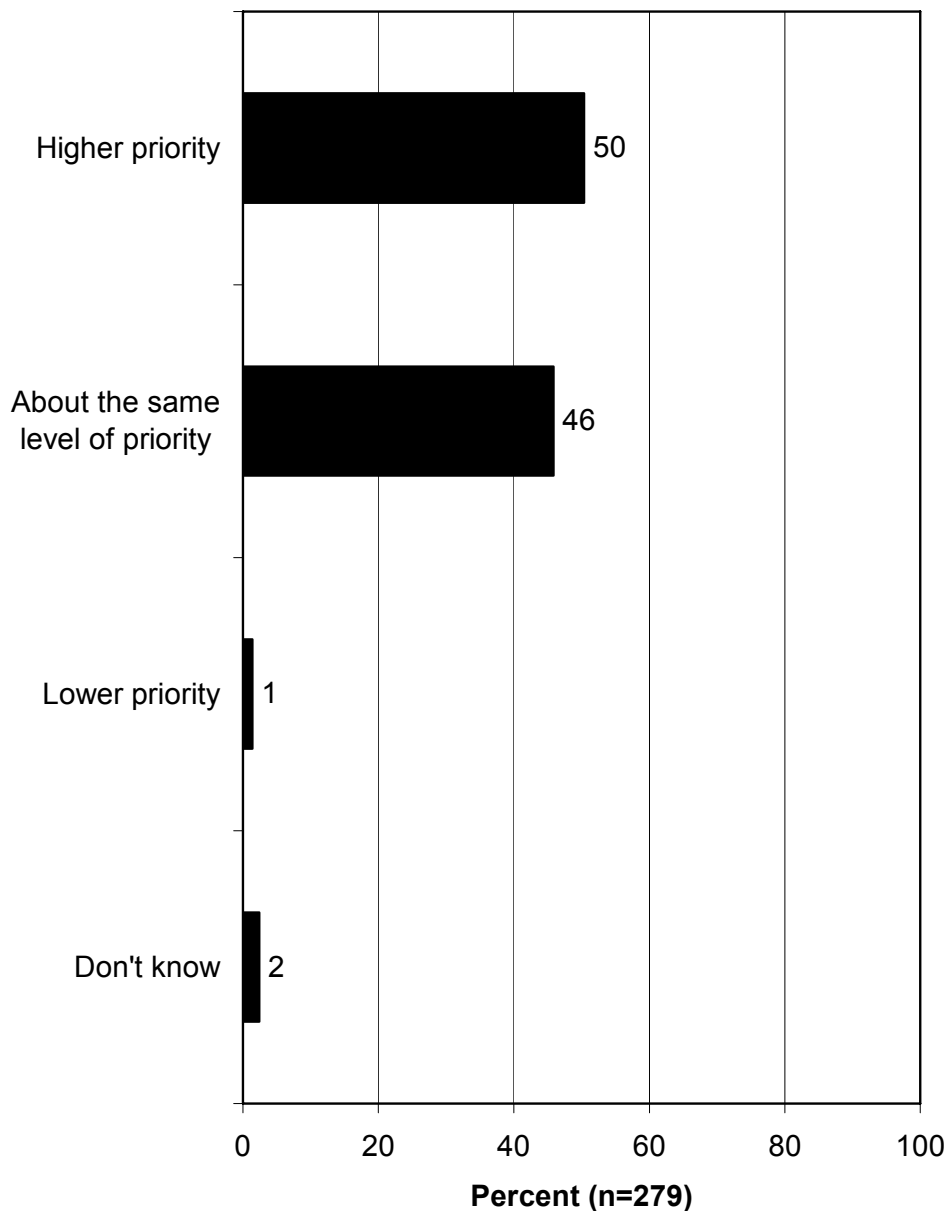
**Q68. How important do you think it is for government to spend tax dollars on the provision of parks and recreation services for children?
(Missouri residents)**



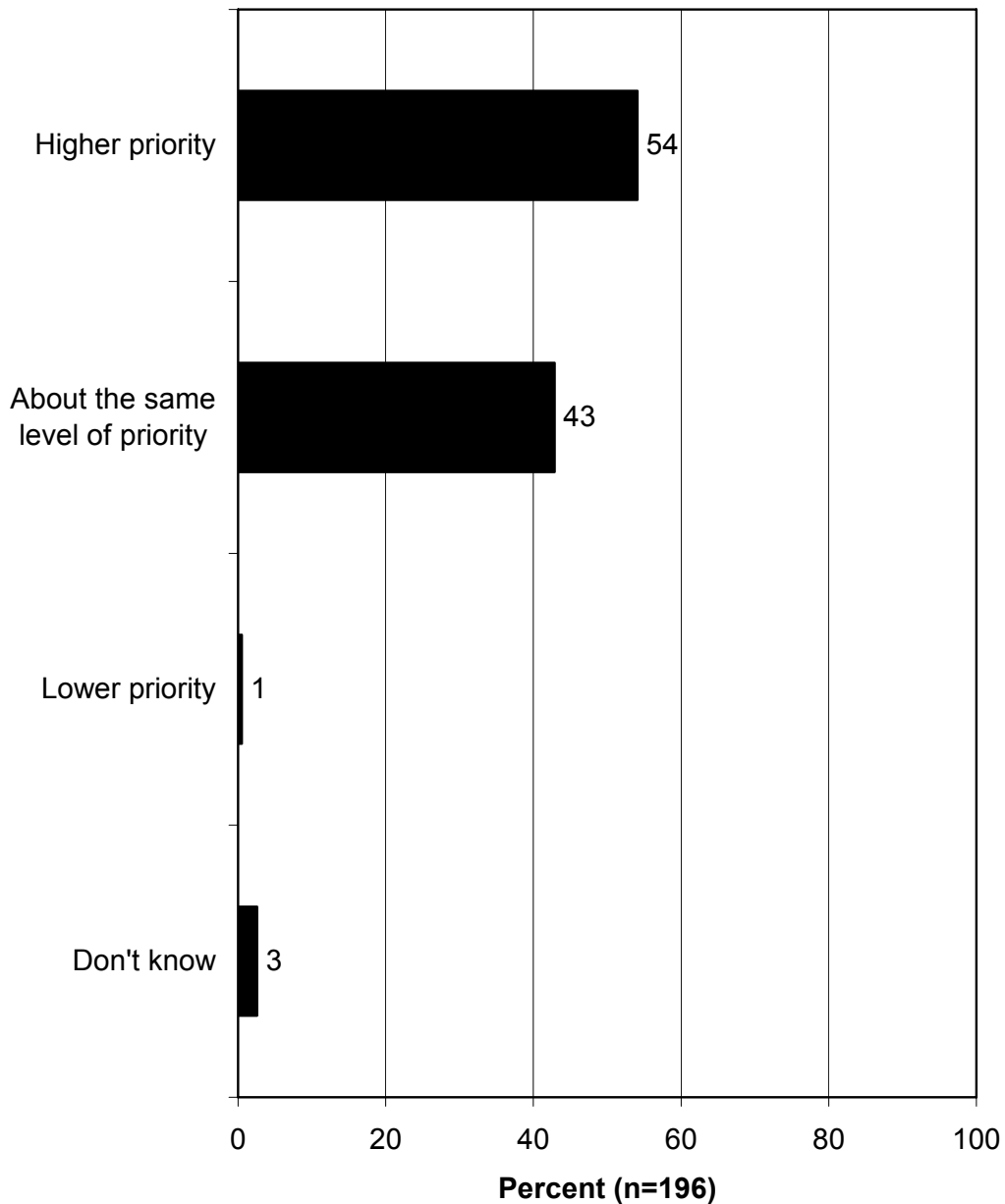
**Q16. How important do you think it is for government to spend tax dollars on the provision of parks and recreation services for children?
(Professionals)**



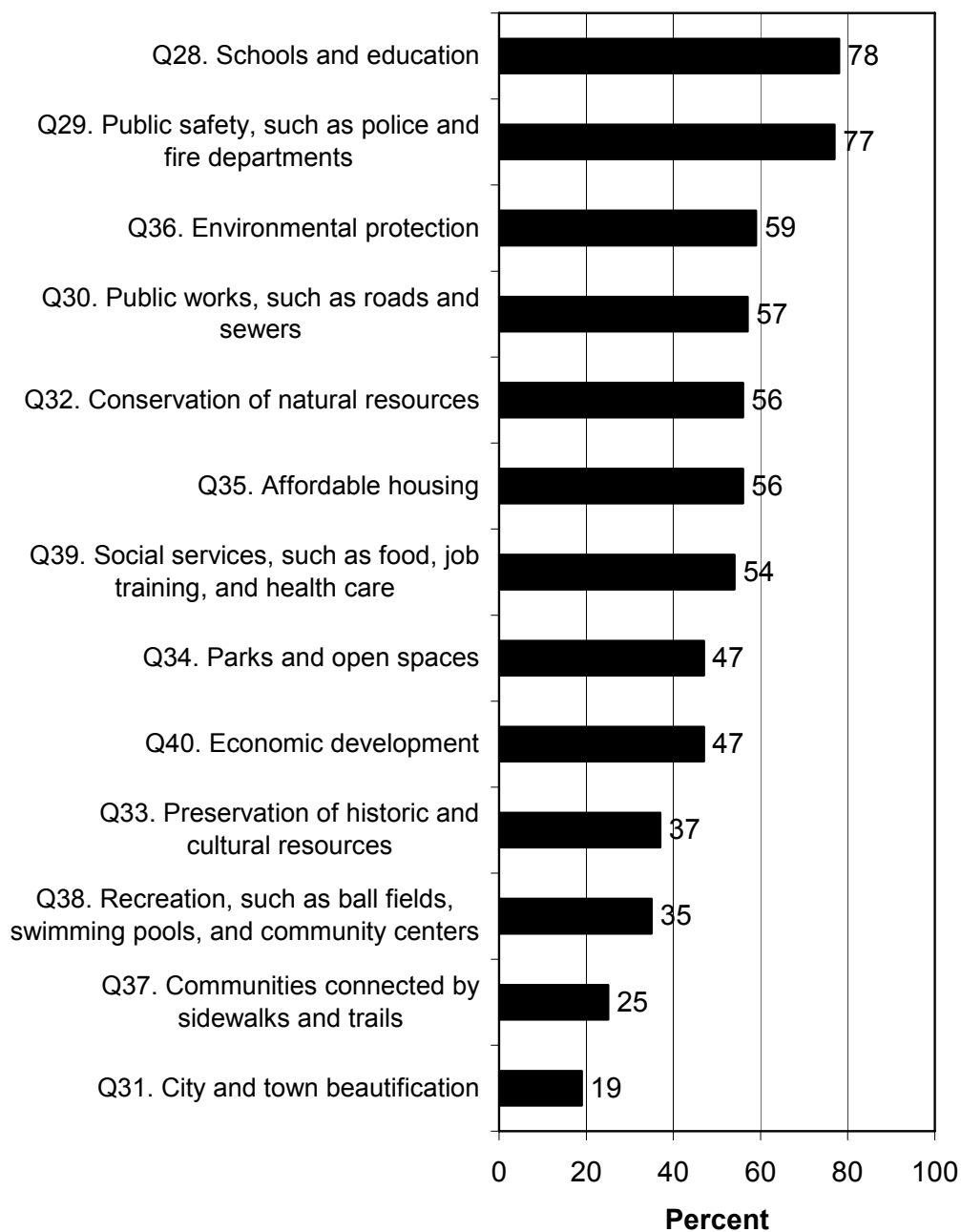
Q69. Would you like to make educating your children about nature and the outdoors a higher priority, about the same level of priority, or a lower priority than it has been for the past 2 years? (Asked of those with children living in their household.)
(Missouri residents)



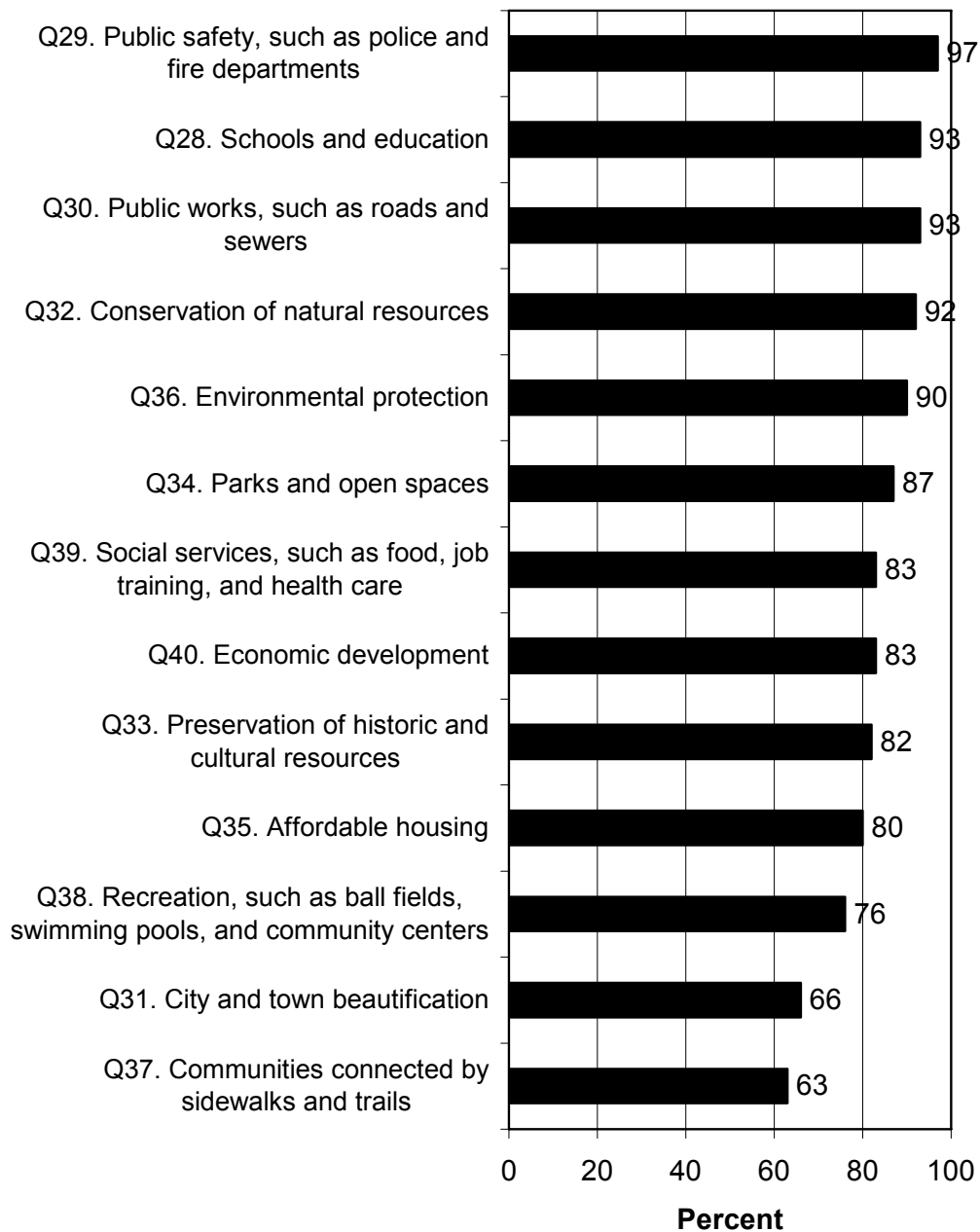
Q17. Would you like to make educating your children about nature and the outdoors a higher priority, about the same level of priority, or a lower priority than it has been for the past 2 years? (Asked of those who have children, age 17 or younger, living in the household.) (Professionals)



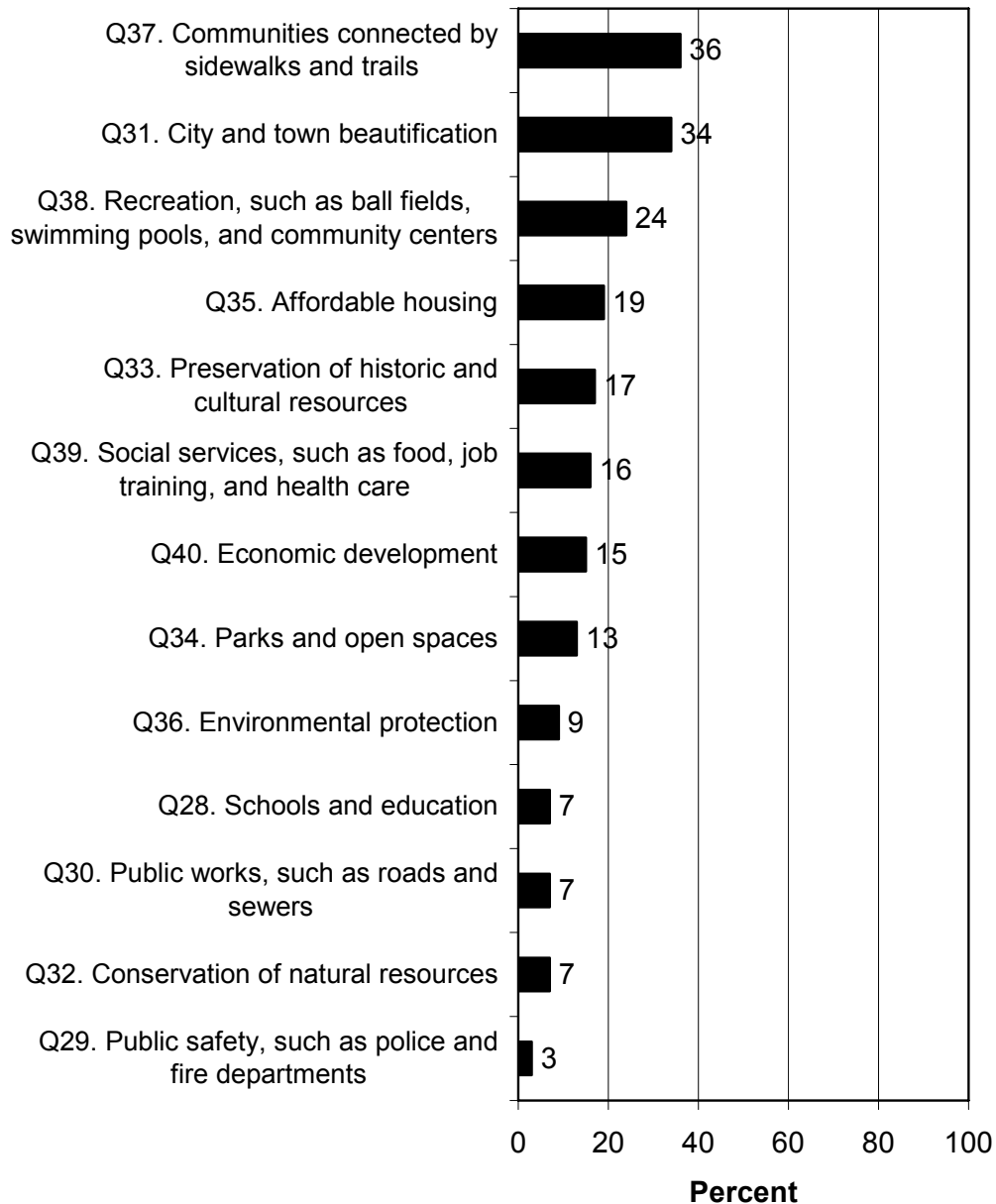
**Percent who indicated that the following are very important to their quality of life.
(Missouri residents)**



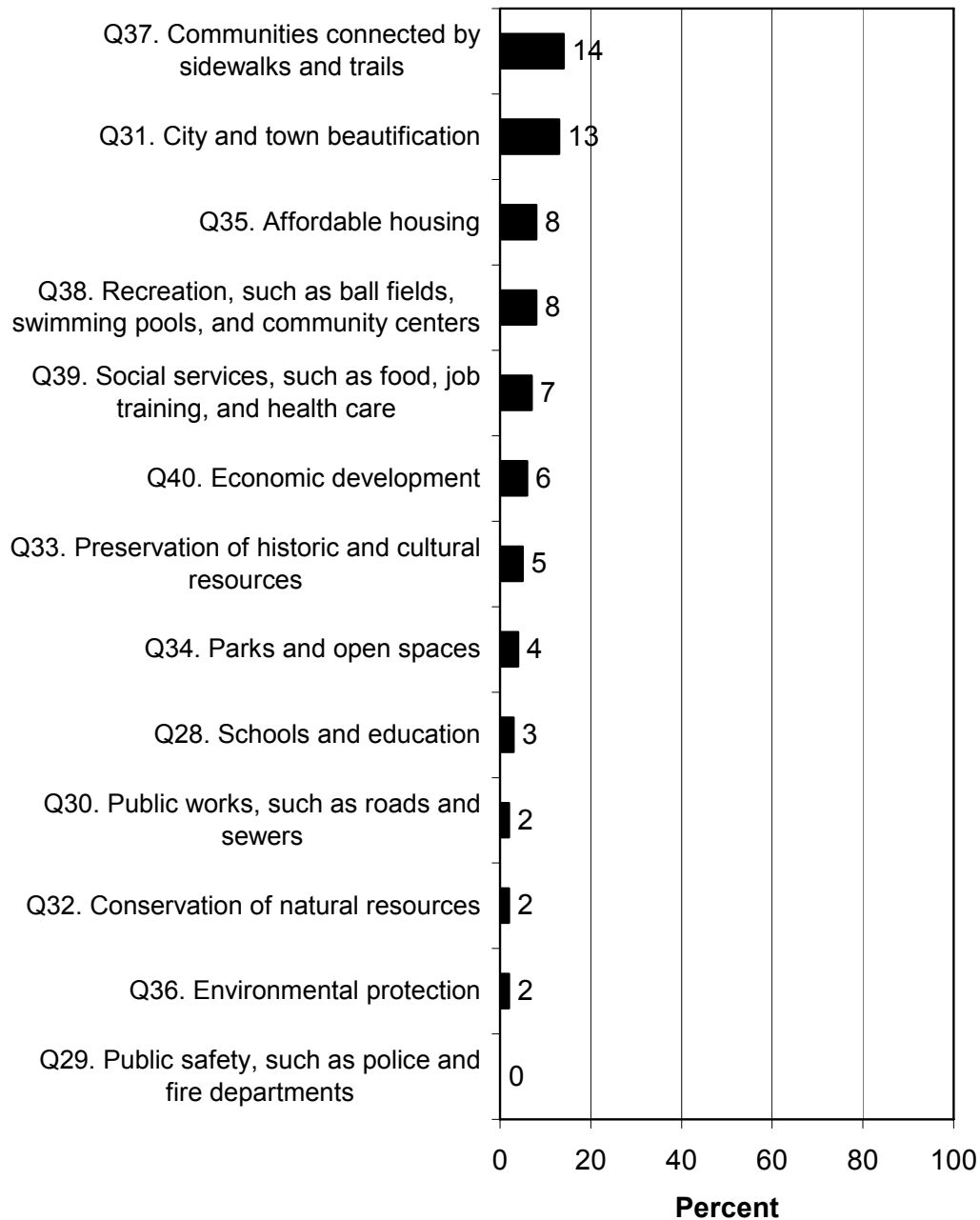
**Percent who indicated that the following are very or somewhat important to their quality of life.
(Missouri residents)**



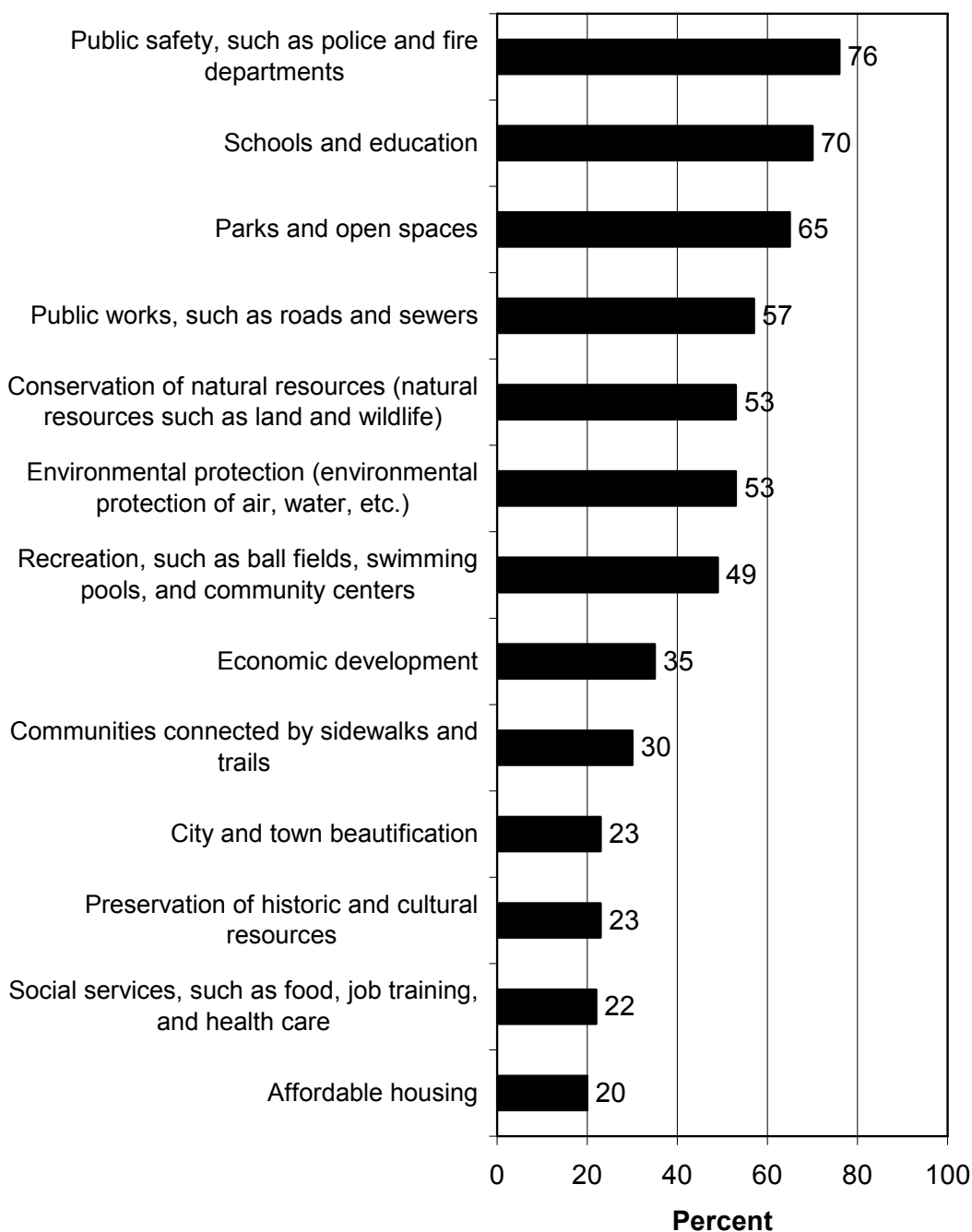
**Percent who indicated that the following are not
very important or not at all important to their quality
of life.
(Missouri residents)**



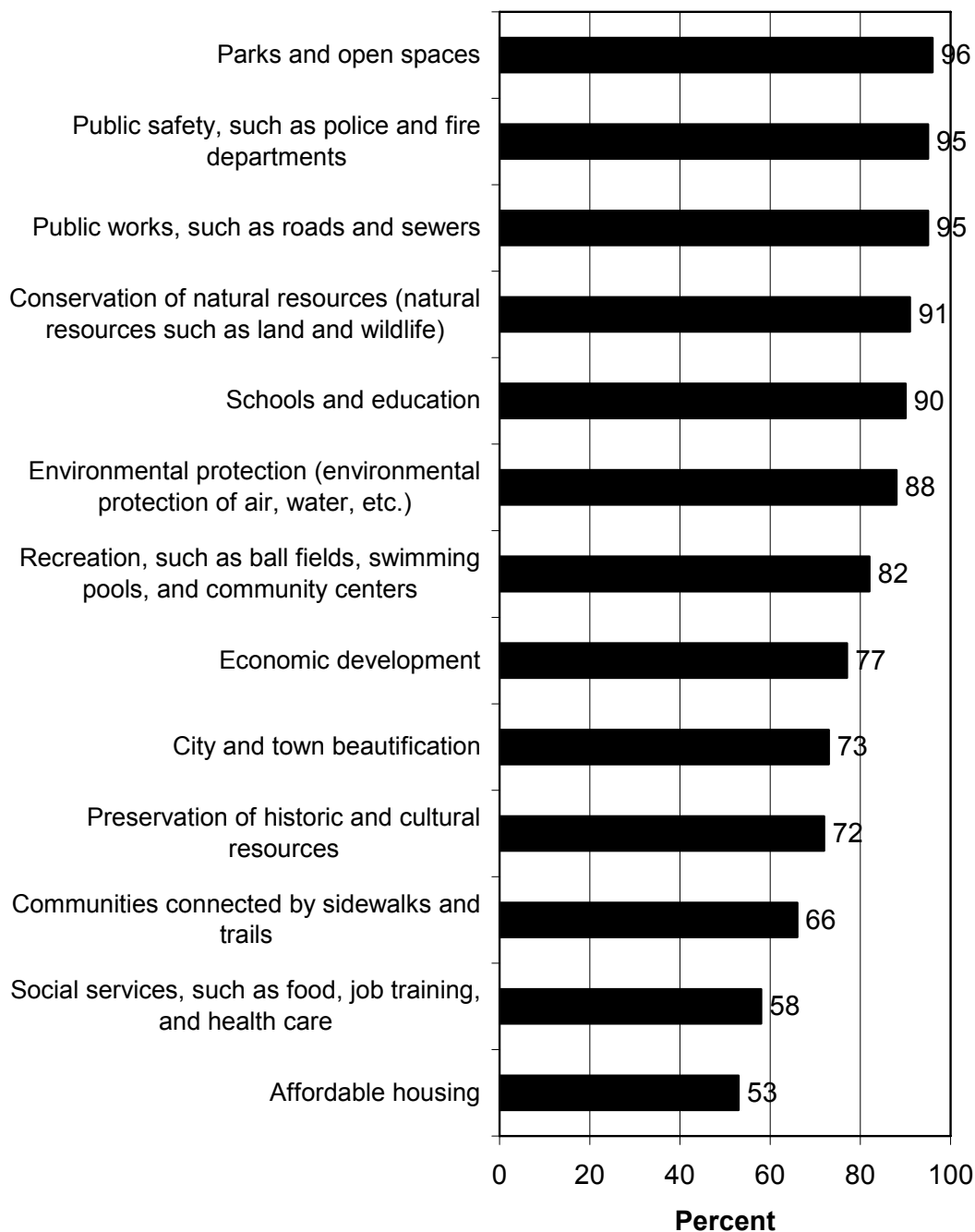
**Percent who indicated that the following are not at
all important to their quality of life.
(Missouri residents)**



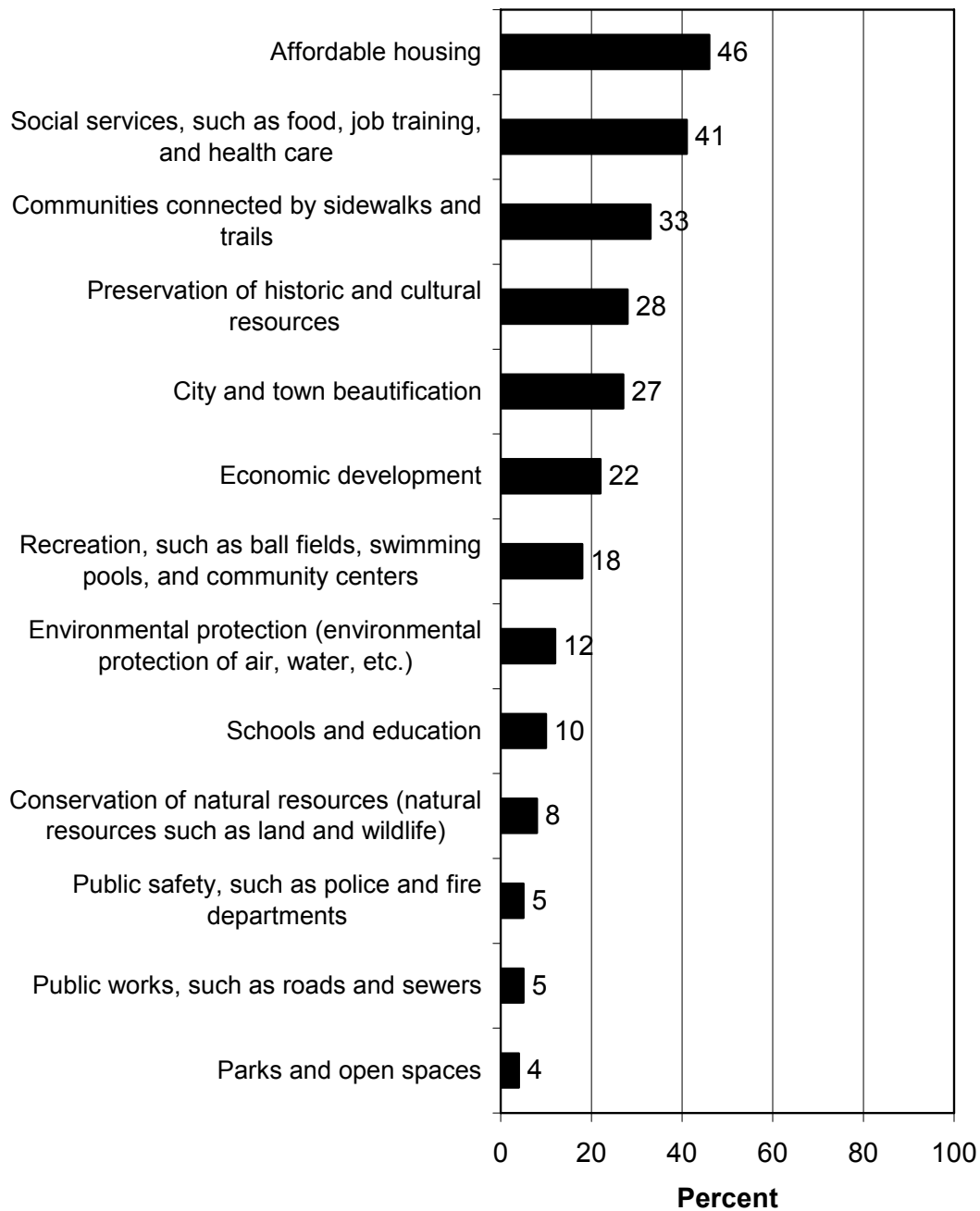
Percent who indicated that the following are very important to them personally for their overall quality of life. (Professionals)



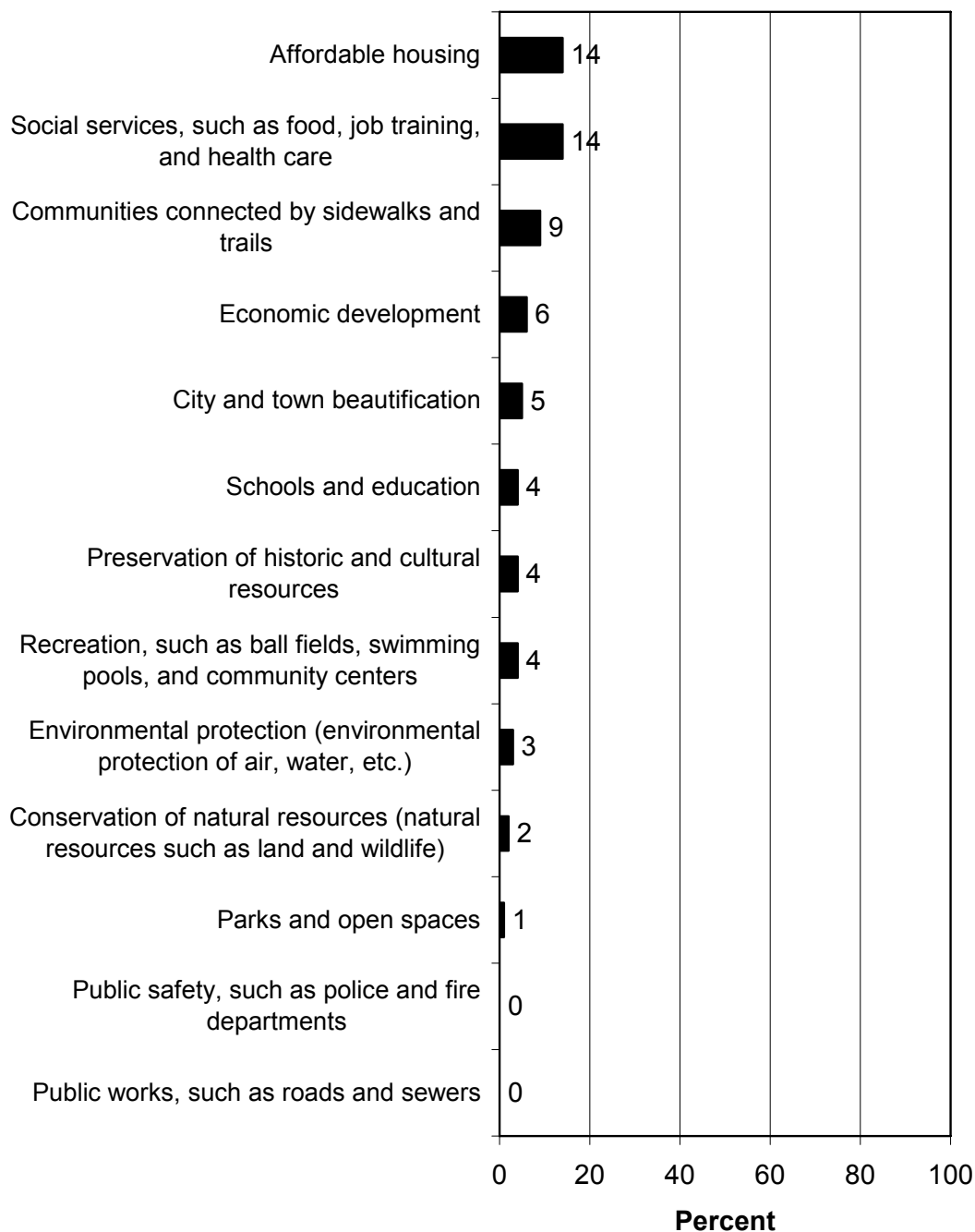
Percent who indicated that the following are very or somewhat important to them personally for their overall quality of life. (Professionals)



**Percent who indicated that the following are not very important or not at all important to them personally for their overall quality of life.
(Professionals)**



Percent who indicated that the following are not at all important to them personally for their overall quality of life. (Professionals)



PARTICIPATION IN RECREATION, AND CONSTRAINTS TO PARTICIPATION

- Outdoor recreational activities are more popular than indoor recreational activities, when survey respondents are asked about their non-work time: 36% say that they enjoy mostly outdoor recreational activities, compared to 10% who say that they enjoy mostly indoor recreational activities (note that the most common answer is both about equally, at 53%).
 - Among professionals, results are similar: 41% say that they enjoy mostly outdoor recreational activities, compared to 3% who say that they enjoy mostly indoor recreational activities. Again, the most common answer is both about equally, at 56%.
 - The nonparametric analysis of the residents' survey examined this question, finding the following correlations to enjoying mostly *outdoor* recreation:
 - *Not* indicating that the following are very important as government expenses: schools and education ($p \leq 0.001$); social services, such as food, job training, and health care ($p \leq 0.001$); public safety, such as police and fire departments ($p \leq 0.01$); affordable housing ($p \leq 0.01$); public works, such as roads and sewers ($p \leq 0.05$); economic development ($p \leq 0.05$).
 - However, indicating that the following is very important as a government expense: preservation of historic and cultural resources ($p \leq 0.05$).
 - *Not* indicating that the following are very important to him/her personally for his/her quality of life: schools and education ($p \leq 0.01$); public safety, such as police and fire departments ($p \leq 0.01$); public works, such as roads and sewers ($p \leq 0.01$); affordable housing ($p \leq 0.05$).
 - However, indicating that the following are very important to him/her personally for his/her quality of life: parks and open spaces ($p \leq 0.01$), conservation of natural resources ($p \leq 0.05$).
 - Agreeing that parks/open space is important to his/her community's economy ($p \leq 0.05$); agreeing that public recreation programs are a luxury rather than a necessity ($p \leq 0.05$).
 - Saying that recreational activities/things he/she does in non-work time are very important to his/her quality of life ($p \leq 0.001$).

- Rating the availability ($p \leq 0.01$) and overall quality ($p \leq 0.05$) of parks and recreation services in Missouri as excellent or good.
- Rating the quality of services provided by the U.S. Fish and Wildlife Service ($p \leq 0.001$), the Missouri Division of State Parks ($p \leq 0.001$), the National Park Service ($p \leq 0.001$), the U.S. Forest Service ($p \leq 0.001$), the U.S. Army Corps of Engineers ($p \leq 0.01$), and/or the Missouri Department of Conservation ($p \leq 0.05$) as excellent or good.
- Having visited a state park ($p \leq 0.001$) and/or a national park or monument ($p \leq 0.05$) in Missouri frequently or sometimes in the past 2 years; but *not* indicating having visited a local public recreation facility ($p \leq 0.01$) in Missouri frequently or sometimes in the past 2 years.
- Being male ($p \leq 0.001$), considering place of residence to be rural ($p \leq 0.001$), being white ($p \leq 0.01$), being from 35 to 54 years old ($p \leq 0.05$).
- The following are correlations to enjoying mostly *indoor* recreation (in the nonparametric analysis of the residents' survey):
 - *Not* indicating that the following are very important as government expenses: parks and open space ($p \leq 0.001$); recreation, such as ball fields, swimming pools, and community centers ($p \leq 0.01$); public works, such as roads and sewers ($p \leq 0.05$); communities connected by sidewalks and trails ($p \leq 0.05$); city and town beautification ($p \leq 0.05$); and/or public safety, such as police and fire departments ($p \leq 0.05$).
 - *Not* indicating that the following are very important to him/her personally for his/her quality of life: parks and open space ($p \leq 0.01$); recreation, such as ball fields, swimming pools, and community centers ($p \leq 0.05$); and/or communities connected by sidewalks and trails ($p \leq 0.05$).
 - *Not* indicating that the following are very or somewhat important benefits of parks and recreation activities: healthy childhood development ($p \leq 0.001$), providing wildlife habitat ($p \leq 0.01$); providing employment opportunities ($p \leq 0.01$), health and fitness ($p \leq 0.01$), connecting with nature ($p \leq 0.01$), attracting business ($p \leq 0.05$), a sense of peace and stress relief ($p \leq 0.05$), and/or protecting natural and historic resources ($p \leq 0.05$).

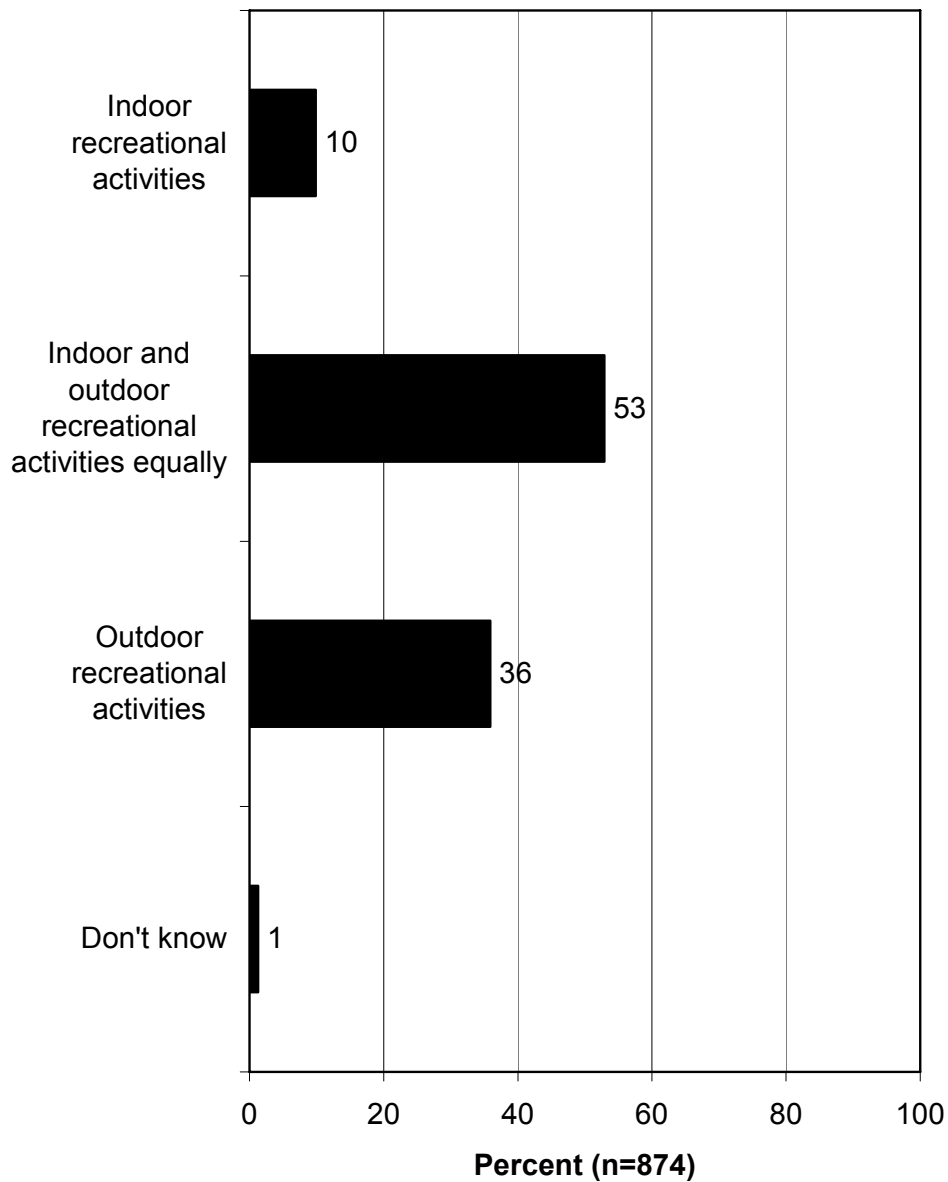
- *Not* agreeing that parks and open space are important to his/her community's economy ($p \leq 0.001$); *not* agreeing that parks, recreation, and open spaces are important for people to improve and maintain good health ($p \leq 0.01$); *not* agreeing that parks, open spaces, greenways, and conservation areas should be budget priorities in his/her community even during economic hard times ($p \leq 0.01$); and/or *not* agreeing that spending time in the outdoors leads to happier and healthier lives ($p \leq 0.05$).
 - *Not* saying that it is very important that the government spend tax dollars on the provision of parks and recreation services for children ($p \leq 0.01$).
 - *Not* saying that recreational activities/things he/she does in non-work time are very important to his/her quality of life ($p \leq 0.001$).
 - *Not* rating the quality of services provided by the Missouri Department of Conservation ($p \leq 0.01$), the U.S. Fish and Wildlife Service ($p \leq 0.01$), the U.S. Forest Service ($p \leq 0.05$), and/or the Missouri Division of State Parks ($p \leq 0.05$) as excellent or good.
 - *Not* rating the overall quality of parks and recreation services in Missouri as excellent or good ($p \leq 0.05$).
 - *Not* having visited a national park or monument ($p \leq 0.001$), a local park ($p \leq 0.001$), a state park ($p \leq 0.001$), and/or a local public recreation facility ($p \leq 0.05$) in Missouri frequently or sometimes in the past 2 years.
 - *Not* having children living in his/her household ($p \leq 0.001$), being female ($p \leq 0.001$), being 55 years old or older ($p \leq 0.01$).
- Half of Missouri residents surveyed (50%) indicate that they do *not* participate in recreational activities or things that they like to do in their non-work time as much as they would like.
- Professionals are even less satisfied with their amount of participation in recreation: 72% of professionals indicate that they do *not* participate in recreational activities or things that they like to do in their non-work time as much as they would like.
 - When asked about things that prevent them from participating in recreational activities as much as they would like, residents most commonly name work obligations (65% of those

who do not participate in recreation as much as they would like), distantly followed by age/health (15%), family obligations (8%), and cost (7%).

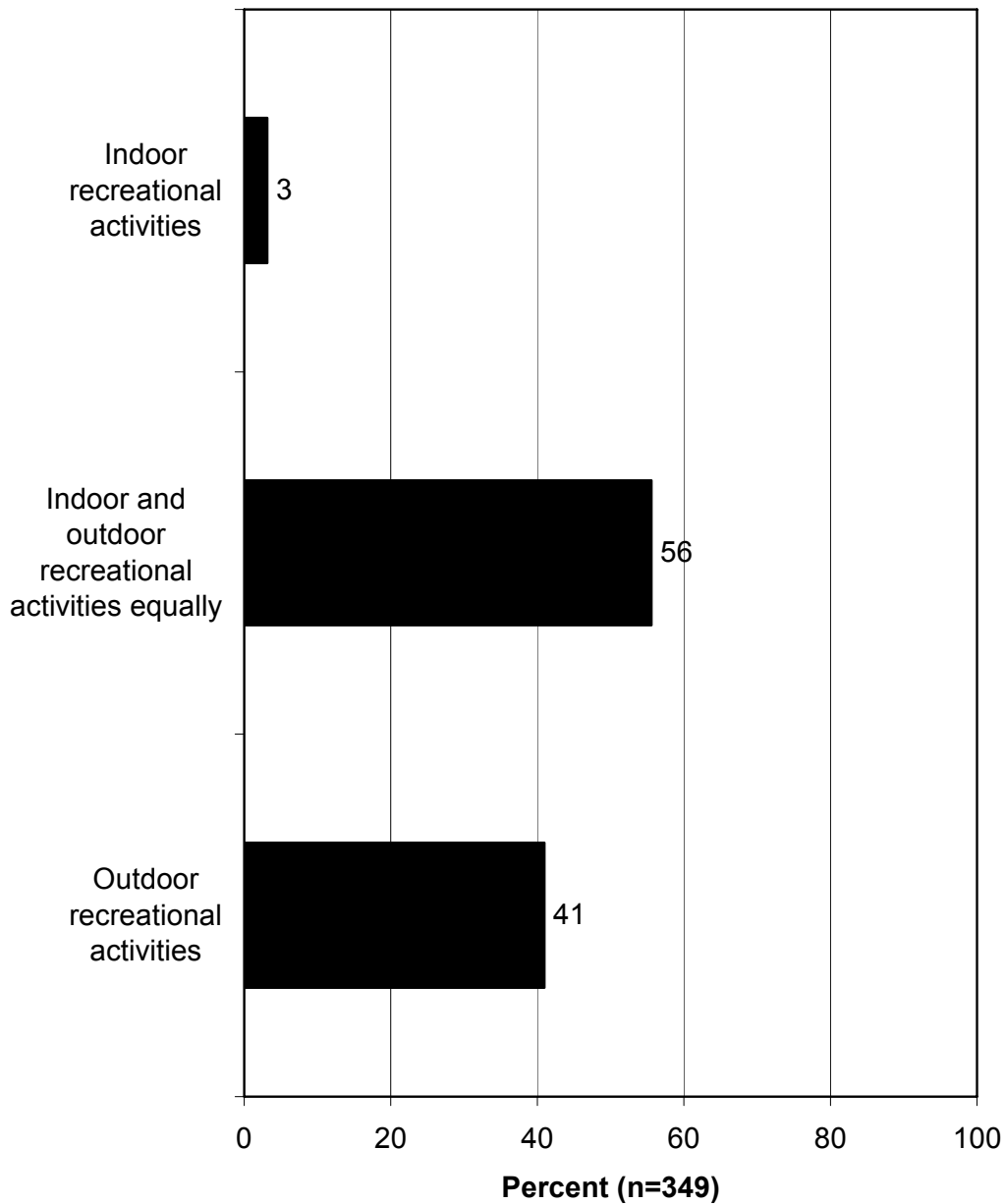
- Among professionals, the most commonly named things that prevent them from participating in recreational activities as much as they would like include lack of time in general, work obligations, and family obligations.
 - The nonparametric analysis of the results of the residents' survey examined this question, finding the following correlations to participating in his/her activities as much as he/she would like (among residents):
 - Saying that city and town beautification is very important as a government expense ($p \leq 0.05$).
 - Saying that city and town beautification is very important to him/her personally for his/her overall quality of life ($p \leq 0.01$).
 - Having visited a local public recreation facility ($p \leq 0.01$) and/or a national park or monument ($p \leq 0.05$) in Missouri frequently or sometimes in the past 2 years.
 - Being non-white ($p \leq 0.01$).
 - The nonparametric analysis found the following correlations to *not* participating in his/her activities as much as he/she would like (among residents):
 - *Not* saying that city and town beautification is very important as a government expense ($p \leq 0.05$).
 - *Not* saying that city and town beautification is very important to him/her personally for his/her overall quality of life ($p \leq 0.01$).
 - *Not* having visited a local public recreation facility ($p \leq 0.01$) and/or a national park or monument ($p \leq 0.05$) in Missouri frequently or sometimes in the past 2 years.
 - Being white ($p \leq 0.01$); having children living in household ($p \leq 0.05$).
- Residents with children living in their household were asked to indicate how many hours per week, on average, that each child spends outdoors. While the answers ranged widely, the median is 12 hours.
- Professionals' answers also ranged widely on this question. Among professionals, the median is 10 hours.

- The survey asked residents to indicate the frequency that they had visited the following in Missouri within the past 2 years: a national park or national monument, a state park, a local park, or a local public recreation facility. More than three quarters of residents (78%) had visited a local park *frequently* or *sometimes*, the most popular location by far. This was followed by a state park (60%), a local public recreation facility (53%), and a national park or monument (50%).
 - The survey asked residents to name the last park, recreation area, or facility that they had visited in Missouri. The top ones include Forest Park in St. Louis, Mark Twain State Park, Creve Coeur Park in St. Louis County, Bennett Spring State Park, Harry S Truman State Park, and the Jefferson National Expansion Memorial (also known as the Gateway Arch). The full results are tabulated after the graph for this question in this section; an alphabetical listing of these parks, recreation areas, and facilities is shown in Appendix A.
 - Residents were also asked to indicate the type of park, recreation area, or facility that they had last visited. The most popular type is a local park (39%) or a state park (25%).
 - Those who had *not* visited a park, recreation area, or facility were asked to indicate why they had *not* done so. Most commonly, they indicated that health/age was to blame. Other common responses include a disability preventing their going to a park and lack of interest.
- The above questions about visitation were also asked of professionals. For the most part, professionals were more avid in visiting the recreational places in Missouri: 97% had visited a local park *frequently* or *sometimes* in the past 2 years in Missouri, 81% had visited a local public recreation facility, 72% had visited a state park, and 47% had visited a national park or monument.
 - Professionals most popular types of park, recreation area, or facility that they had last visited were a local park (36%), a state park (19%), or a community center (14%).

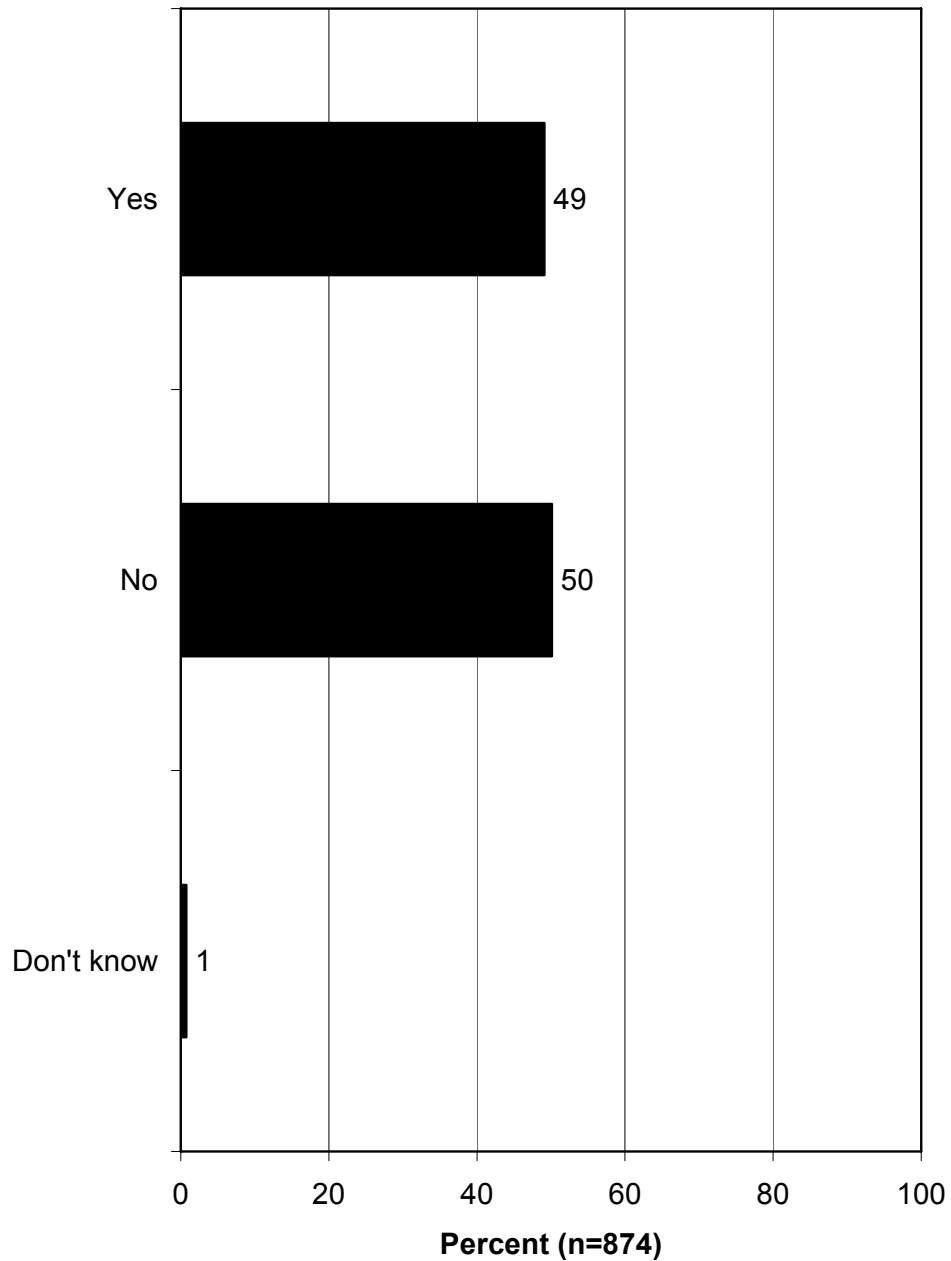
Q41. When it comes to recreational activities or things you do in your non-work time, would you say you're someone who mostly enjoys indoor recreational activities, outdoor recreational activities, or indoor and outdoor recreational activities equally?
(Missouri residents)



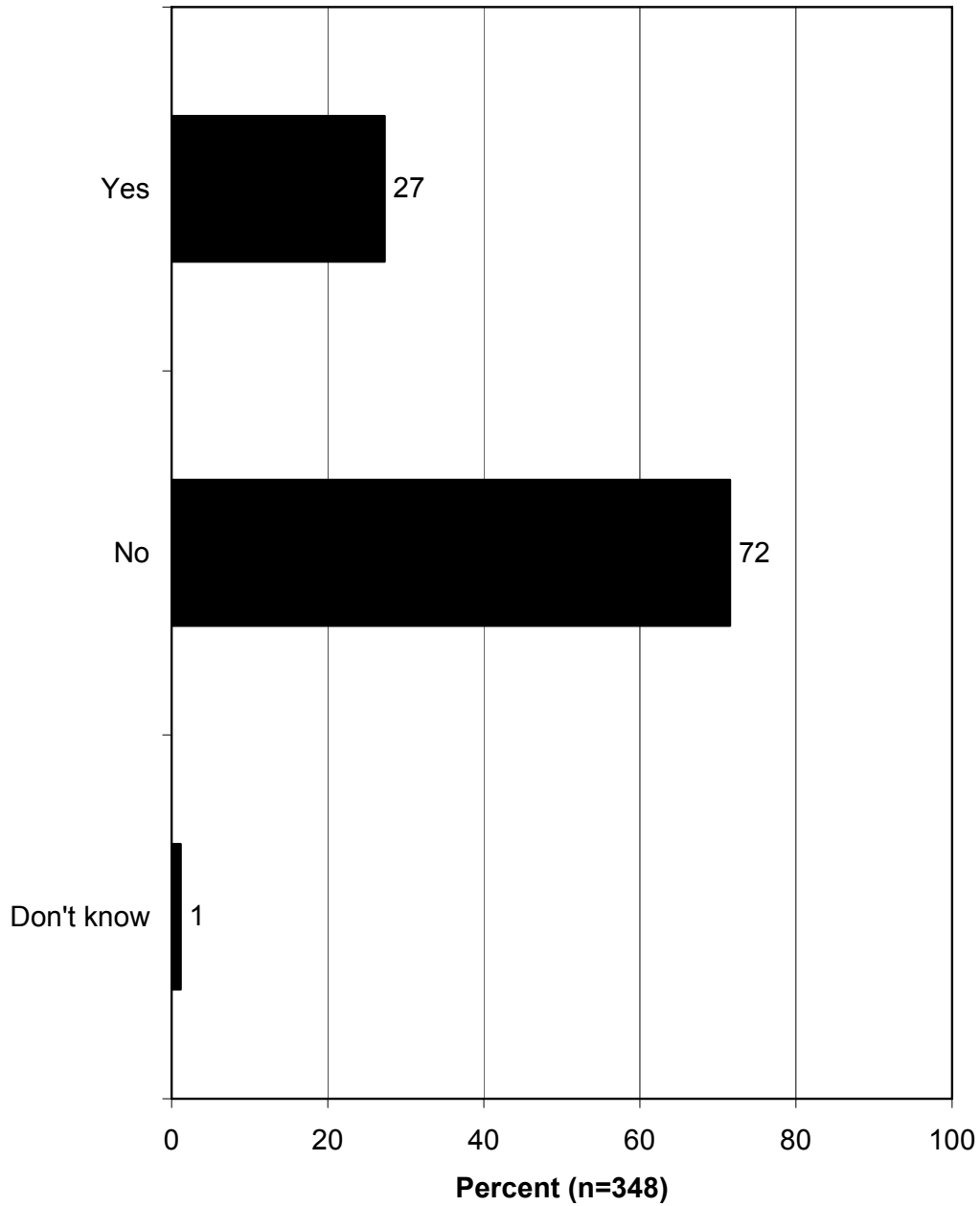
Q3. When it comes to recreational activities or things you do in your non-work time, would you say you are someone who mostly enjoys indoor recreational activities, outdoor recreational activities, or indoor and outdoor recreational activities equally? (Professionals)



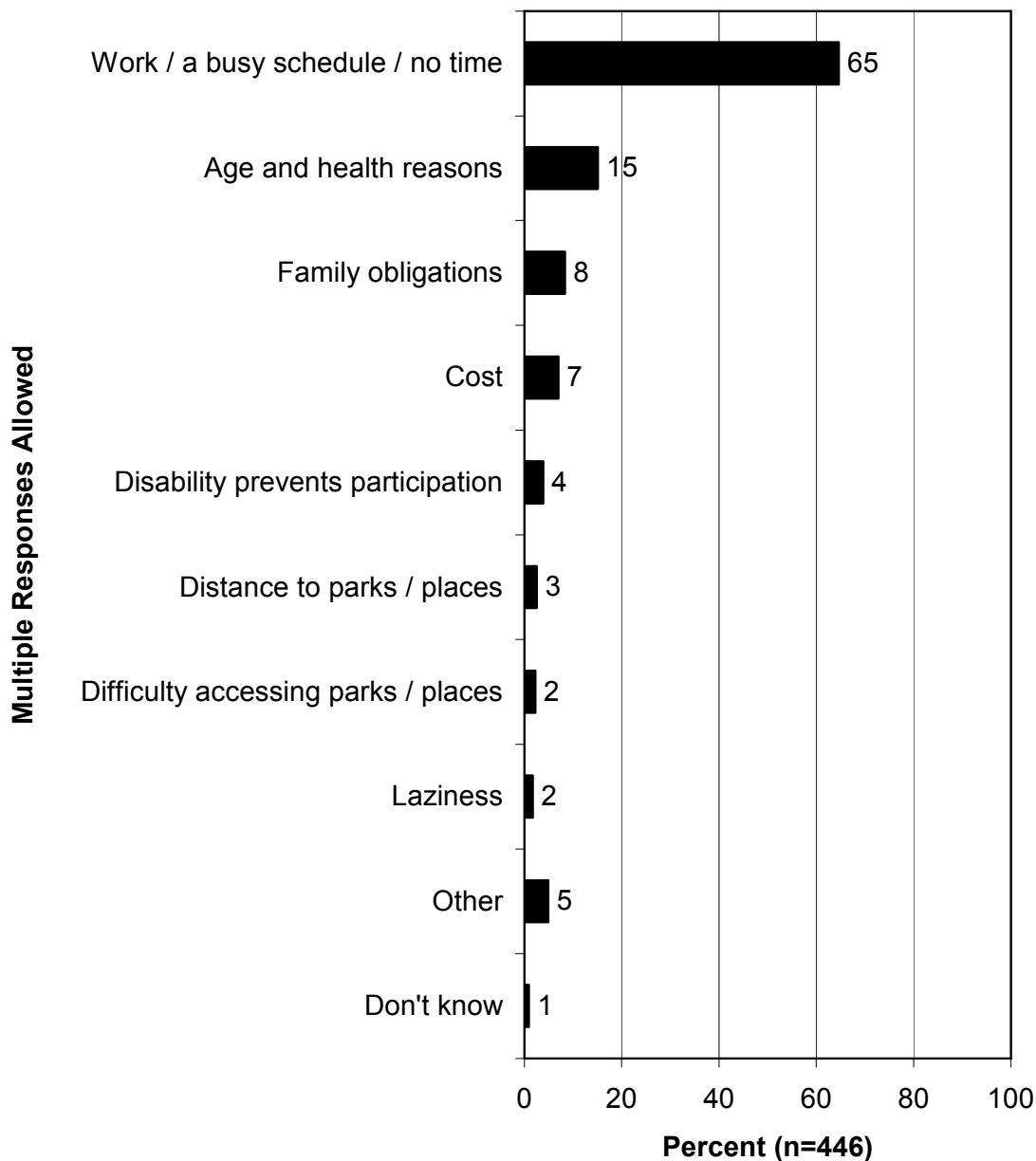
**Q42. Considering everything, do you find that you participate in these activities as much as you like?
(Missouri residents)**



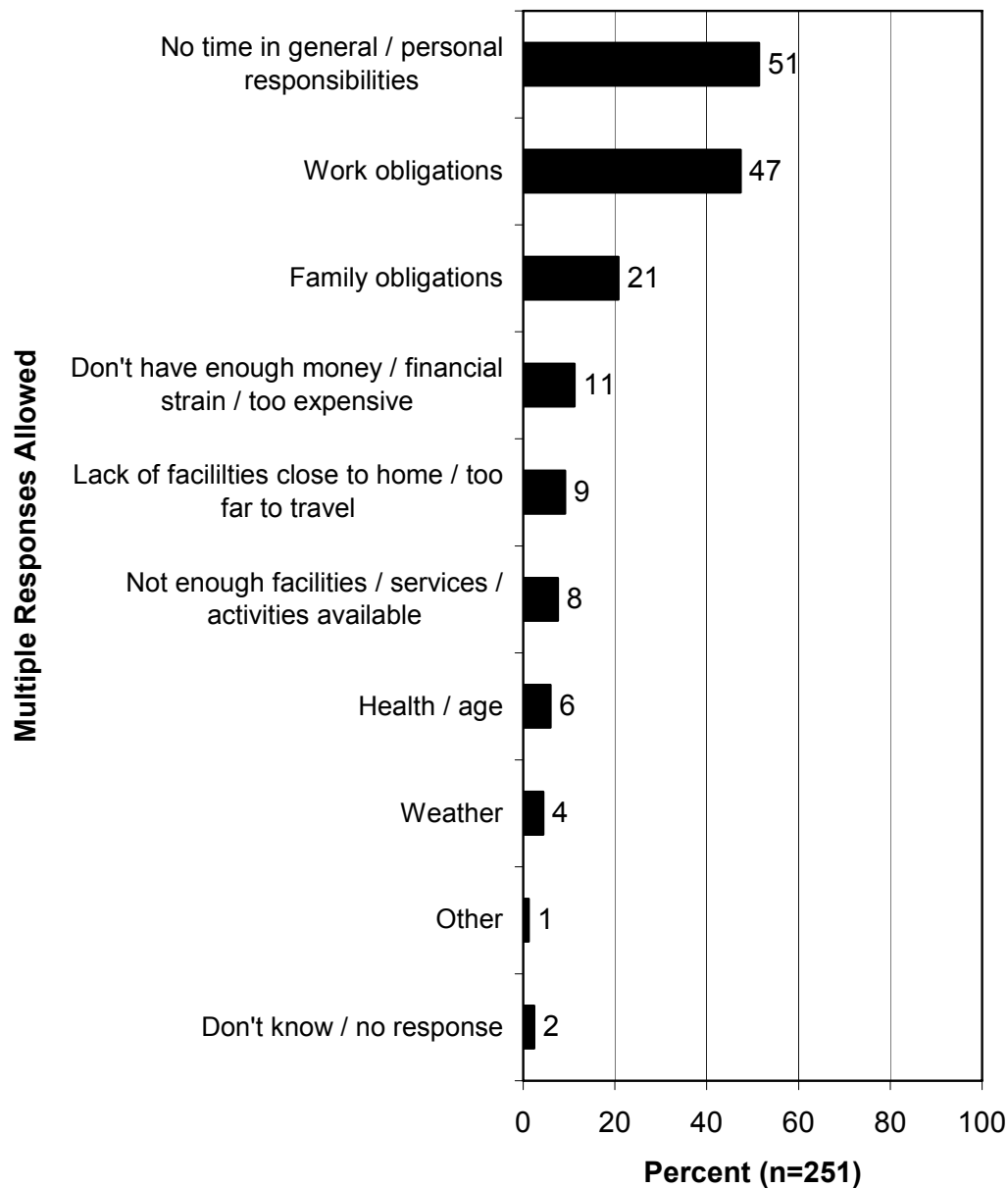
**Q4. Considering everything, do you find that you participate in these activities as much as you like?
(Professionals)**



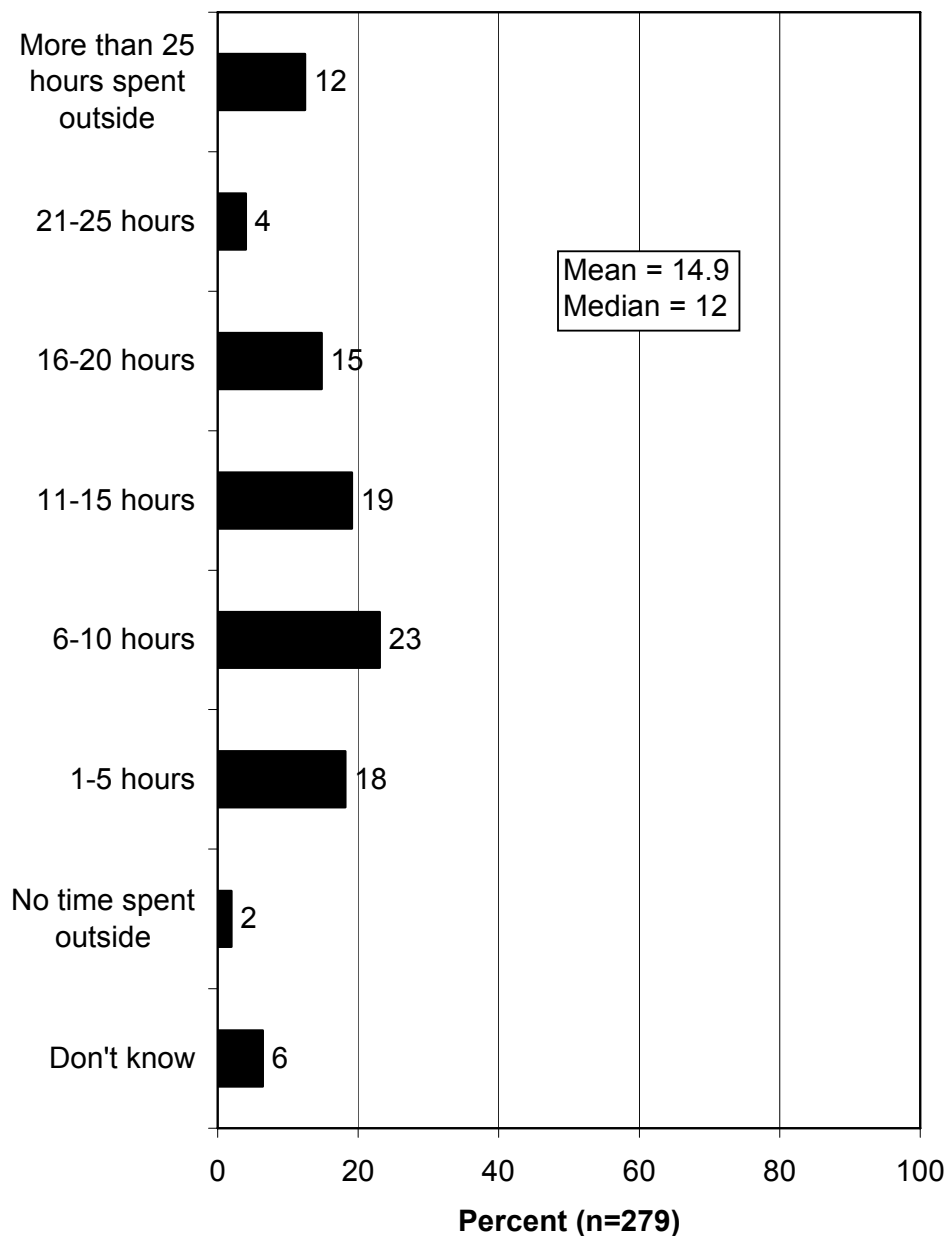
Q43. What things prevent you from participating in these activities as much as you like? (Among those who indicated that they do not participate in recreational activities as much as they would like.) (Missouri residents)



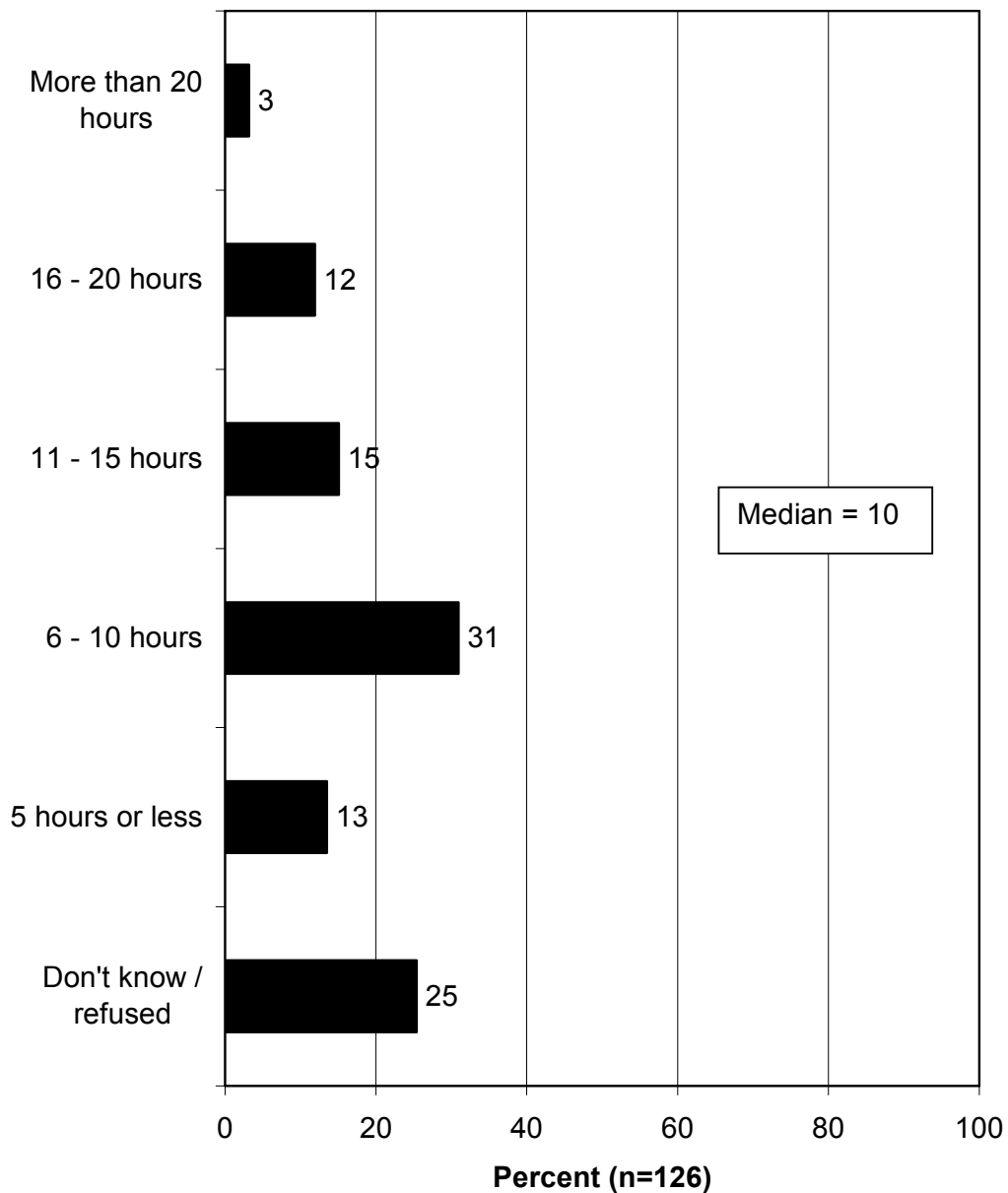
**Q5. What things prevent you from participating in these activities as much as you like? (Asked of those who do not participate in recreational activities as much as they would like.)
(Professionals)**



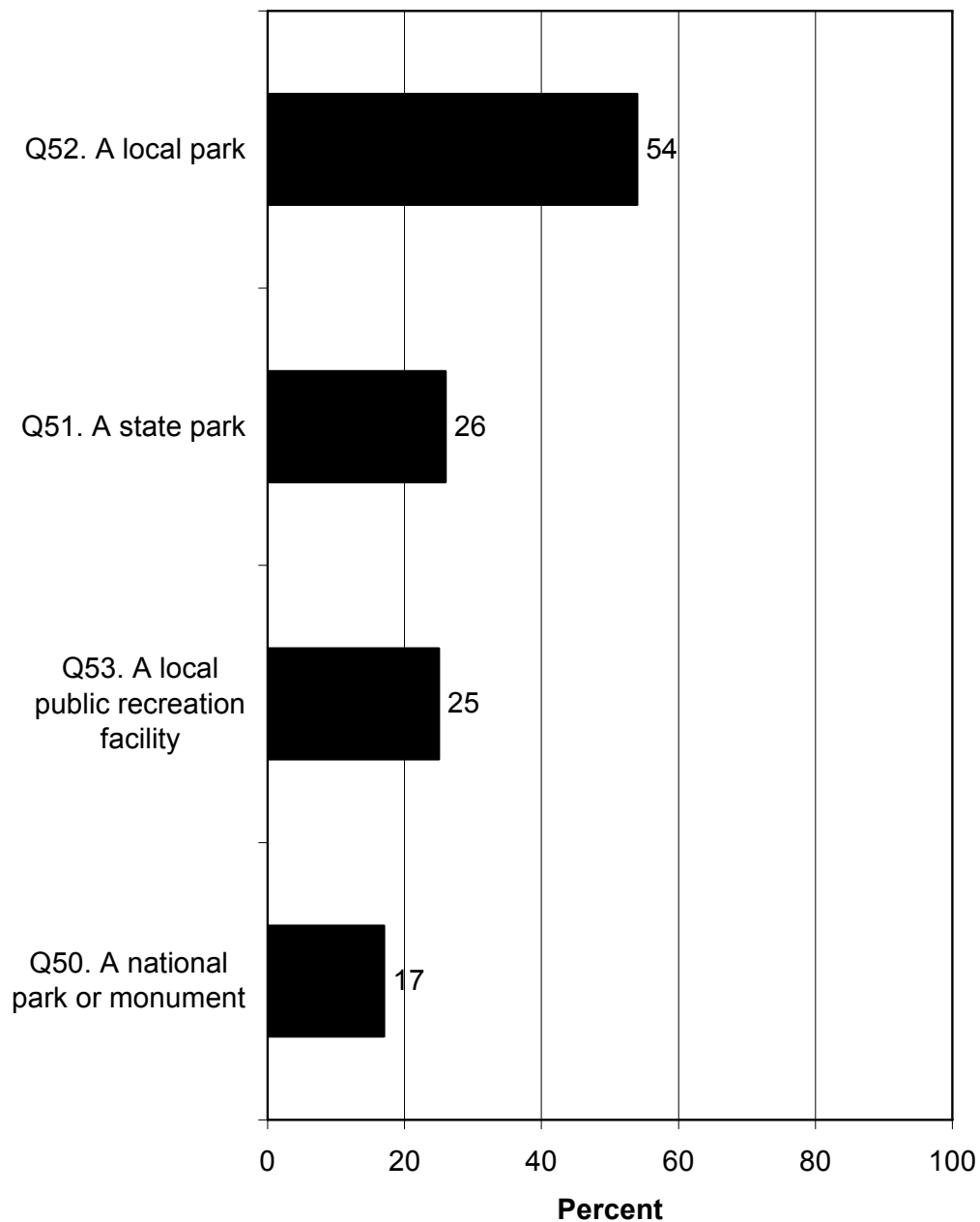
**Q65. On average, how many hours per week does each child living in your household spend outdoors? (Asked of those with children living in their household.)
(Missouri residents)**



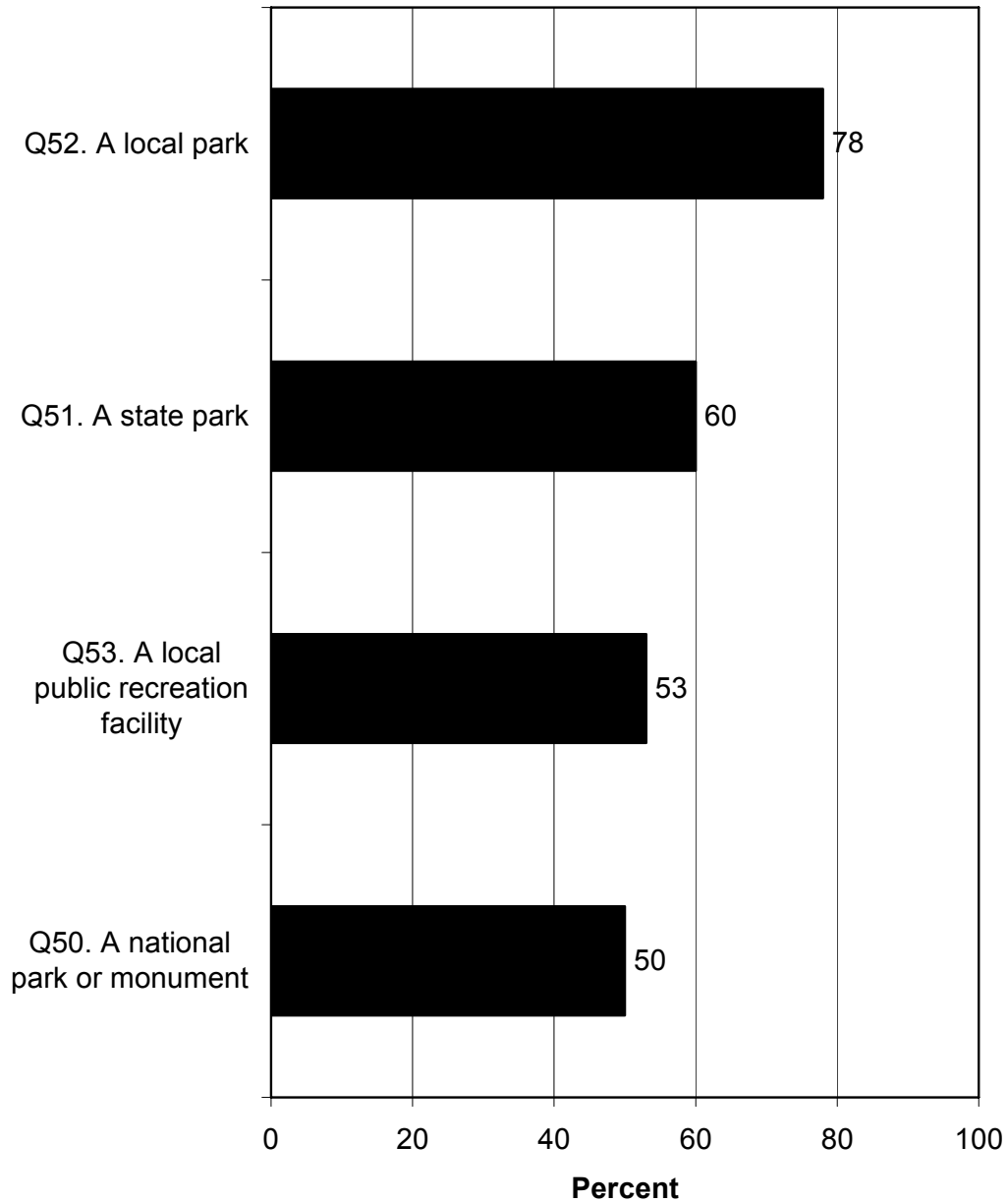
**Q15. On average, how many hours per week does each child living in your household spend outdoors? (Asked of those who have children, age 17 or younger, living in their household.)
(Professionals)**



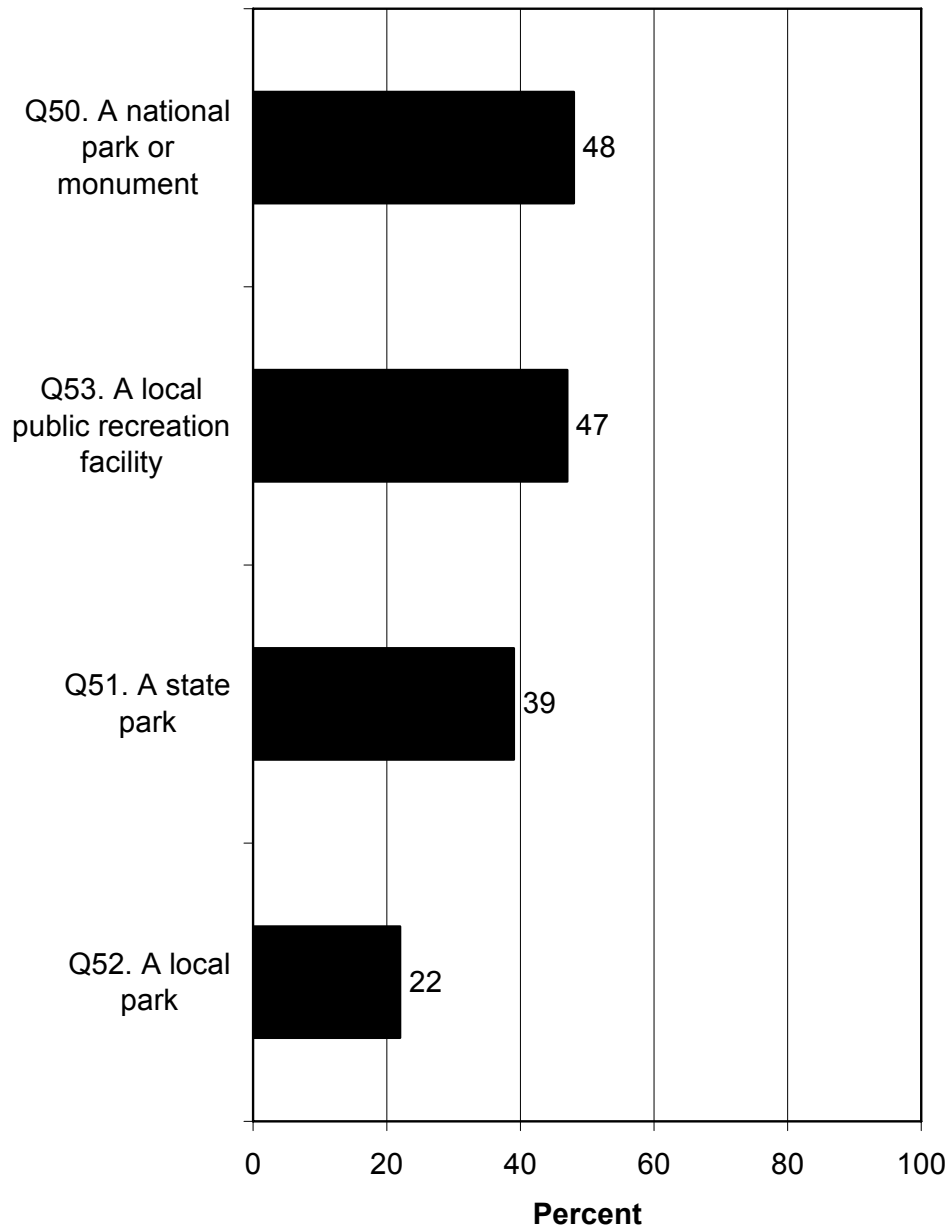
**Percent who indicated that they frequently visited
the park type in Missouri in the past 2 years.
(Missouri residents)**



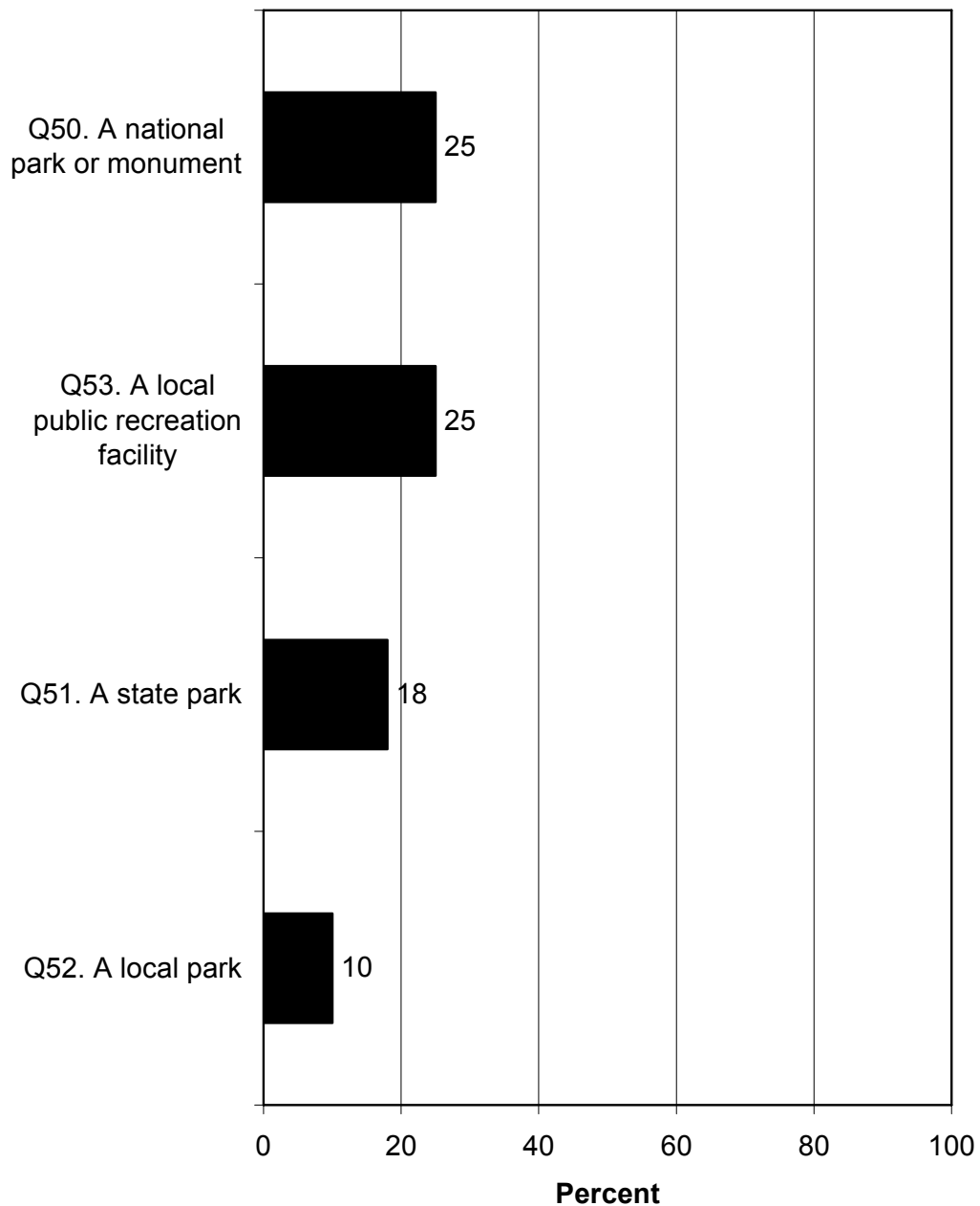
**Percent who indicated that they frequently or
sometimes visited the park type in Missouri in the
past 2 years.
(Missouri residents)**



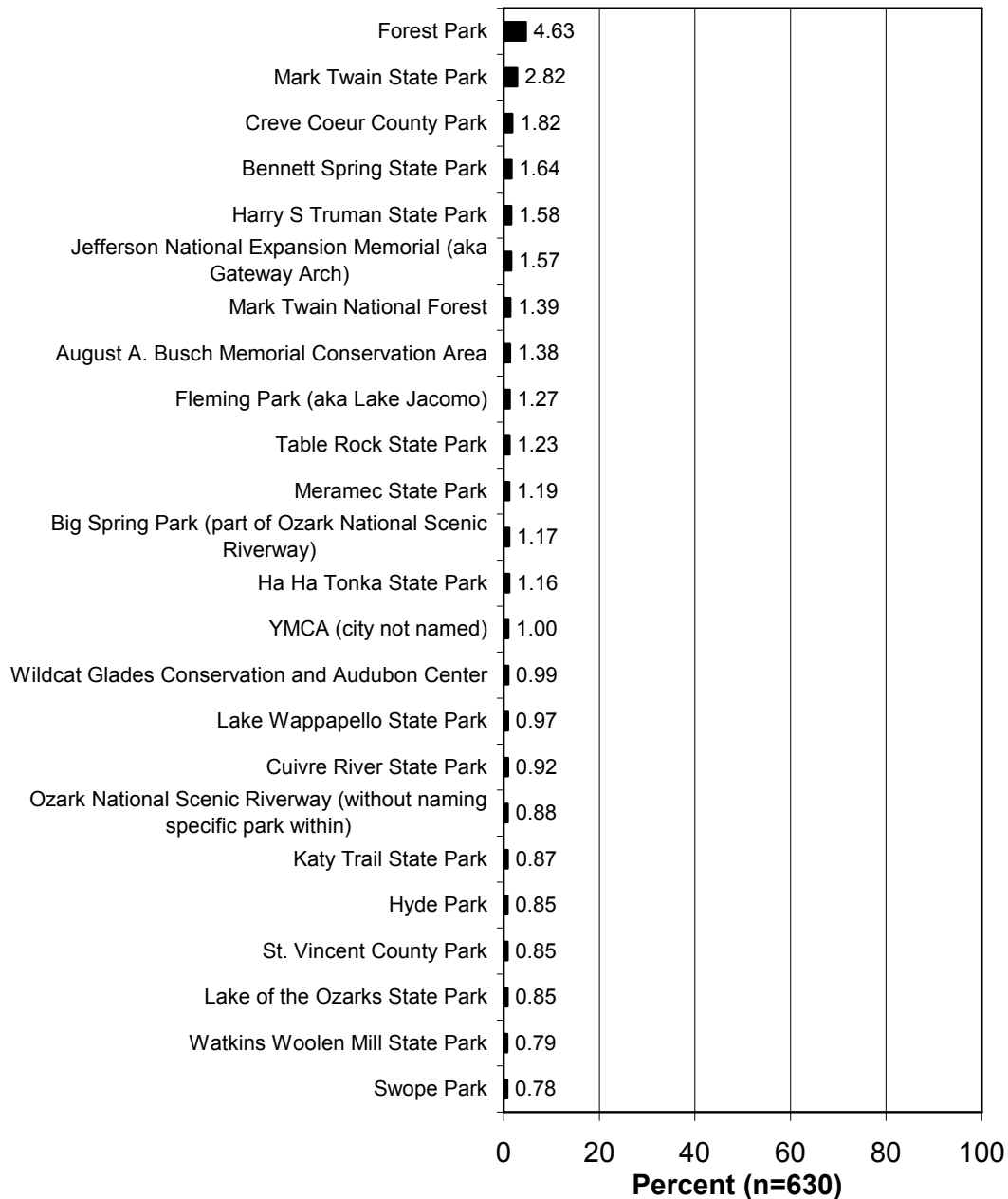
**Percent who indicated that they rarely or never
visited the park type in Missouri in the past 2 years.
(Missouri residents)**



**Percent who indicated that they never visited the
park type in Missouri in the past 2 years.
(Missouri residents)**



Q56. Name of the public park, recreational area, or facility last visited in Missouri. (Among those who could name the park, area, or facility.)
(Shows only those locations with 0.75% or higher.)
(Missouri residents)



Name	Percent Visited*
Forest Park	4.63
Mark Twain State Park	2.82
Creve Coeur County Park	1.82
Bennett Spring State Park	1.64
Harry S Truman State Park	1.58
Jefferson National Expansion Memorial (aka Gateway Arch)	1.57
Mark Twain National Forest	1.39
August A. Busch Memorial Conservation Area	1.38
Fleming Park (aka Lake Jacomo)	1.27
Table Rock State Park	1.23
Meramec State Park	1.19
Big Spring Park (part of Ozark National Scenic Riverway)	1.17
Ha Ha Tonka State Park	1.16
YMCA (city not named)	1.00
Wildcat Glades Conservation and Audubon Center	0.99
Lake Wappapello State Park	0.97
Cuivre River State Park	0.92
Ozark National Scenic Riverway (without naming specific park within)	0.88
Katy Trail State Park	0.87
Hyde Park	0.85
St. Vincent County Park	0.85
Lake of the Ozarks State Park	0.85
Watkins Woolen Mill State Park	0.79
Swope Park	0.78
Stockton State Park	0.67
Babler State Park	0.63
Clifton Heights Lake	0.62
Rock Bridge Memorial State Park	0.61
Elephant Rocks State Park	0.58
Queeney County Park	0.58
Jefferson Barracks County Park	0.57
Chesterfield (general area)	0.56
Quail Ridge Park	0.56
Stevens Lake	0.56
Mingo National Wildlife Refuge	0.55
Deer Ridge (general area)	0.53
St. Louis County (general area)	0.52
Legacy Park	0.52
St. Joe State Park	0.52
Longview Lake	0.51
Centennial Park	0.50
McCoy Park	0.50
St. Francois State Park	0.49
Missouri Botanical Garden	0.49
Lone Elk County Park	0.47
John Anderson Park	0.47
Loose Park	0.47
Harris Park Community Center	0.46
Darter Park	0.46
Kenneth E. Cowan Civic Center	0.46

Name	Percent Visited*
King Jack Park	0.46
Overland (general area)	0.46
Parkville (general area)	0.46
Salisbury Park	0.46
Whitely Park	0.46
Sequiota (general area)	0.45
Arnold City Park	0.43
St. Peters Rec-Plex	0.43
Crowder State Park	0.42
O'Fallon Park	0.42
Wallace State Park	0.41
Fort Zumwalt Park	0.40
Engler Park	0.40
Marshall Diggs Wildlife Area	0.40
Lewis and Clark State Park	0.39
Monkey Mountain Trail	0.39
Big Lake State Park	0.39
Weston Bend State Park	0.39
Alley Spring Park (part of Ozark National Scenic Riverway)	0.39
Tanglewood Park	0.39
Little Indian Creek	0.39
Pershing State Park	0.38
Hawn State Park	0.37
Castlewood State Park	0.36
Dexter (general area)	0.36
James A. Reed Memorial Wildlife Area	0.36
Apple Creek Conservation Area	0.35
Sam A. Baker State Park	0.34
Finley River Park	0.34
Onondaga Cave State Park	0.34
Rutledge-Wilson Farm Park	0.33
Black River	0.32
Pomme de Terre State Park	0.32
Burr Oak Woods Conservation Nature Center	0.31
Arrow Rock State Historic Site	0.31
Jackson (general area)	0.31
Springfield (general area)	0.30
Lindenwood (general area)	0.30
Long Branch State Park	0.30
Roaring River State Park	0.30
Thousand Hills State Park	0.29
Capen Park	0.27
Garvin Park	0.27
Van Meter State Park	0.27
Rothwell Park	0.27
Morris State Park	0.26
Nathaniel Greene Park	0.26
National World War I Museum	0.26
LaBenite Park	0.26
Laumeier Sculpture Park	0.26
Pony Express National Historic Trail	0.26

Name	Percent Visited*
Sioux Passage County Park	0.26
St. Louis Zoo	0.26
Three Creeks Conservation Area	0.26
Warrensburg Community Center	0.26
Springfield Nature Center	0.25
Trail of Tears State Park	0.25
Clearwater (general area)	0.24
Spanish Lake County Park	0.24
Tower Grove Park	0.23
Branson (general area)	0.23
Washington State Park	0.22
Klondike Park	0.21
Burch Creek	0.20
Happy Rock Park	0.20
Harrisonville (general area)	0.20
Knob Noster State Park	0.20
Powder Valley Conservation Nature Center	0.20
Robertsville State Park	0.20
Springfield Conservation Nature Center	0.20
Unionville (general area)	0.20
Willard (general area)	0.20
Amidon Memorial Conservation Area	0.19
Ashley Park (Lebanon)	0.19
Cole County (general area)	0.19
English Landing Park	0.19
Gasconade River	0.19
Heisler Park	0.19
Joplin (general area)	0.19
Liberty Community Center	0.19
Remington Nature Center	0.19
Shaw Park	0.19
Tilles County Park	0.19
Washington Riverfront Trail	0.19
Battlefield City Park	0.19
J.D. Trail Riding Camp	0.18
Oak Grove (general area)	0.18
Dewey Park (general area)	0.17
Dockery Park	0.17
Frontier Park	0.17
Hill Park	0.17
January-Wabash Park	0.17
Kibler Park	0.17
Manchester (general area)	0.17
Marquette Park	0.17
Meadowmere Park	0.17
Missouri Town 1855	0.17
North Kansas City Park	0.17
Ozark Community Center	0.17
Phelps Grove Park	0.17
Pickle Springs Natural Area	0.17
Squaw Creek National Wildlife Refuge	0.17

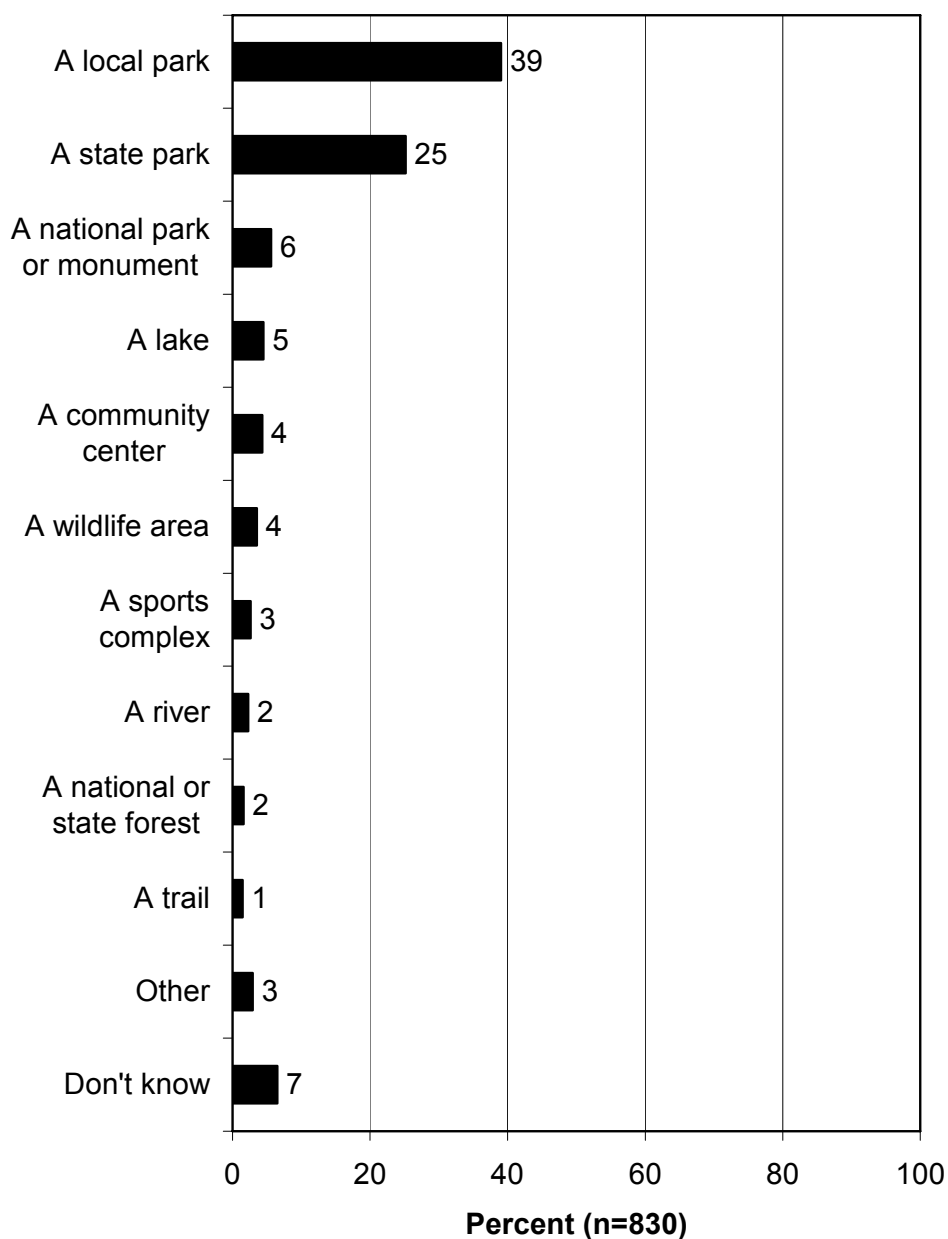
Name	Percent Visited*
Westboro-Canterbury Greenway	0.17
Baldwin Park	0.14
Belton Community Center	0.14
Butler (general area)	0.14
Columbia (general area)	0.14
Fort Osage	0.14
Fountain Bluffs Sports Complex	0.14
Gerald (general area)	0.14
Grants Trail County Park	0.14
Greentop (general area)	0.14
Harry S Truman Library and Museum	0.14
Henderson Park (Norfolk Lake area)	0.14
Holden (general area)	0.14
Kentucky Lake	0.14
Krug Park	0.14
Liberty (general area)	0.14
Markham Springs Recreation Area (in Mark Twain National Fore	0.14
Mussel Fork Conservation Area	0.14
Painted Rock State Forest	0.14
Theodosia (general area)	0.14
Tiffany Springs (general area)	0.14
Veterans Park	0.14
Wyaconda (general area)	0.14
Affton White-Rodgers Community Center	0.14
Mill Creek Park	0.14
Republic (general area)	0.14
Bohrer County Park	0.13
C. Lee Kenagy Park	0.13
Cunningham Park	0.13
Deer Lake Golf Course	0.13
Fellows Lake	0.13
Galloway (general area)	0.13
George Washington Carver National Monument	0.13
Grant Beach Park	0.13
Hodge Park Lake	0.13
Indian Creek (general area)	0.13
Johnson's Shut-Ins State Park	0.13
Norfolk River	0.13
Normandy (general area)	0.13
Nottoway Lake	0.13
Orleans Trail Resort and Marina	0.13
Stewart Heights Park/Odair Baseball Field	0.13
Sugar Creek State Forest	0.13
Arena Park (Cape Girardeau Co.)	0.13
Columbia Cosmopolitan Recreation Area (aka Cosmo Park)	0.13
Ferndale Park	0.13
Grant's Farm	0.13
Hannibal (general area)	0.13
Hermann (general area)	0.13
Jones-Confluence Point State Park	0.13
Kirkwood (general area)	0.13

Name	Percent Visited*
Marshfield Rotary Park	0.13
Mastodon State Historic Site	0.13
Missouri Conservation Center	0.13
Owensville (general area)	0.13
River Cut Golf Course	0.13
White Marble Park	0.13
Dawt Mill	0.12
Empire Park	0.12
Living Memorial Park	0.12
Mississippi River	0.12
Perkins Park	0.12
Perryville (general area)	0.12
Powell's Garden	0.12
Rabbit Run Park	0.12
Rogers Lake	0.12
St. Anne's Park and Rose Gardens	0.12
Swan Lake National Wildlife Refuge	0.12
Washington (general area)	0.12
Arrowhead Stadium	0.11
Brookfield (general area)	0.11
Close Memorial Park	0.11
Fenton City Park	0.11
Hammons Field (Springfield Cardinals stadium)	0.11
Indian Foothills Park	0.11
Polo (general area)	0.11
Progress Park	0.11
Route 66 State Park	0.11
Southmoreland (general area)	0.11
Union (general area)	0.11
Wilson's Creek National Battlefield	0.11
Blind Pony Lake	0.10
Blue Bird Park	0.10
Clydesdale County Park	0.10
Dolling Park	0.10
James River	0.10
Montauk State Park	0.10
Public Beach 1 and 2 (Lake Ozark)	0.10
River Oaks Golf Course	0.10
Rock Port (general area)	0.10
Runge Conservation Nature Center	0.10
Smithville Lake	0.10
Ted Shanks Conservation Area	0.10
Tipton Park Lake	0.10
Wheeler Park	0.10
Named park not in Missouri (e.g., "Yellowstone")	0.72
Unknown / Not specific (e.g., "county park")	12.89

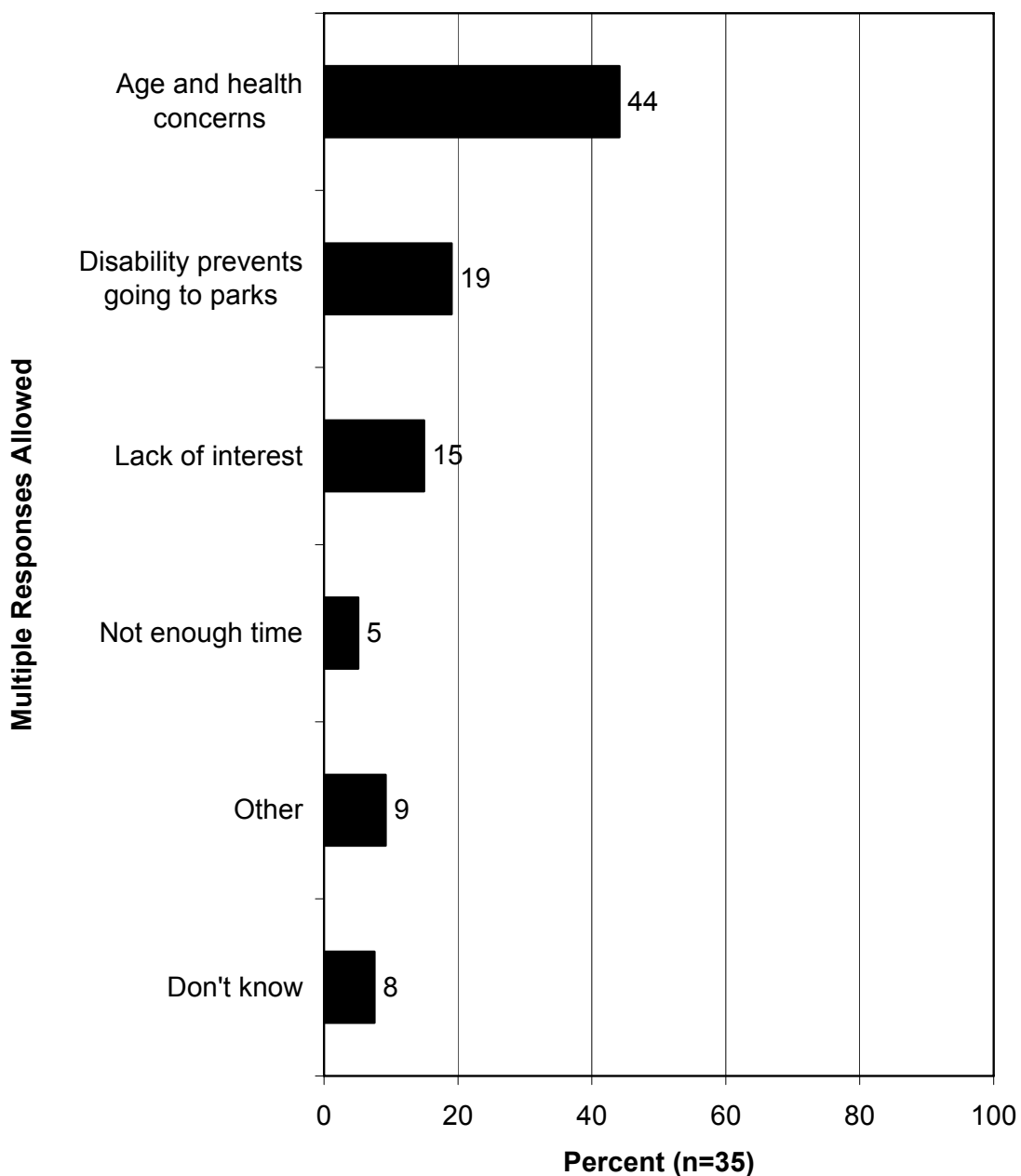
* Percentage is among those who could name the last park, recreation area, or facility they visited.

(Appendix A shows the above table sorted alphabetically.)

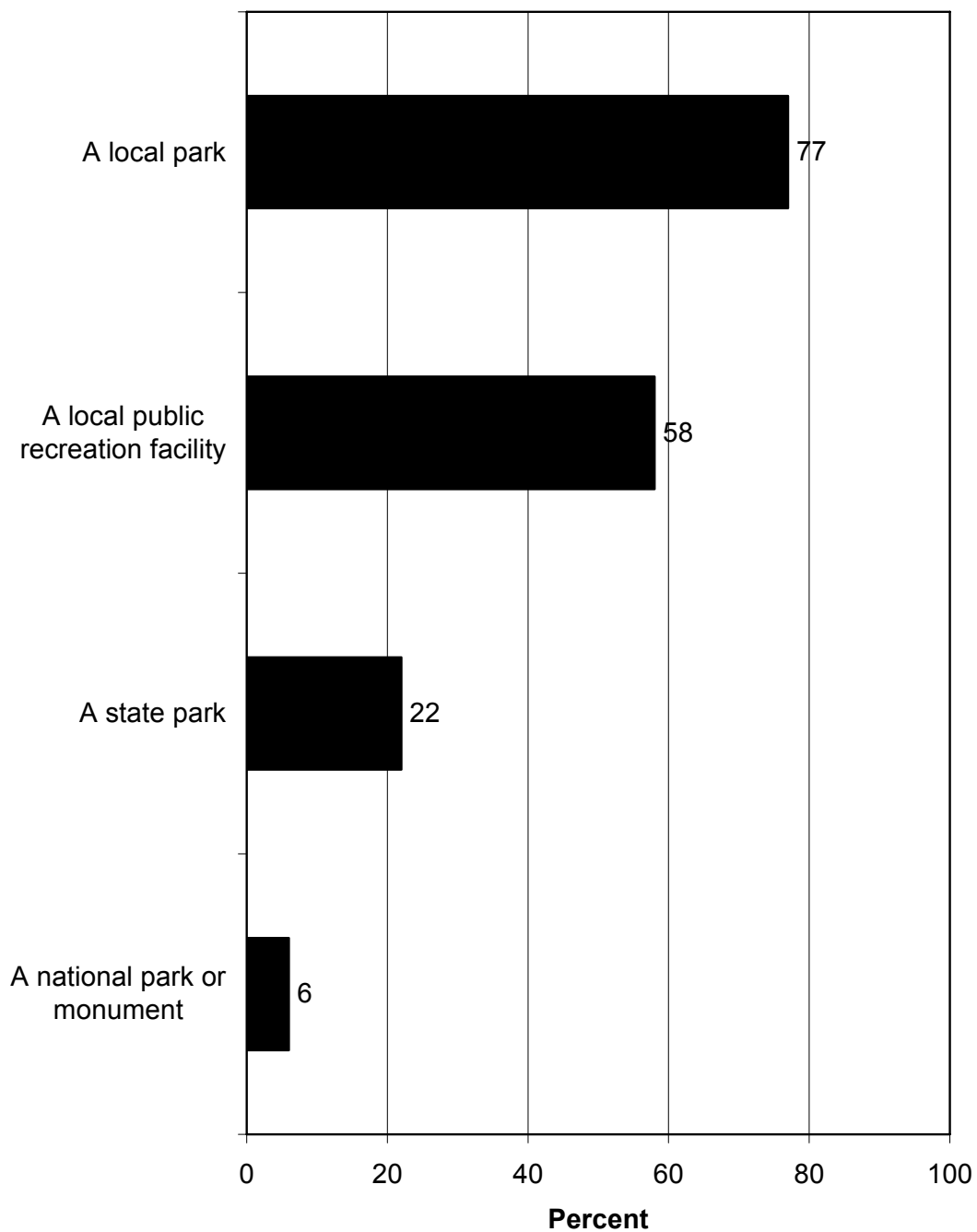
**Q57. Please tell me what type of public park, recreation area, or facility you last visited in Missouri. (Asked of those who visited a park, recreation area, or facility in the past 2 years.)
(Missouri residents)**



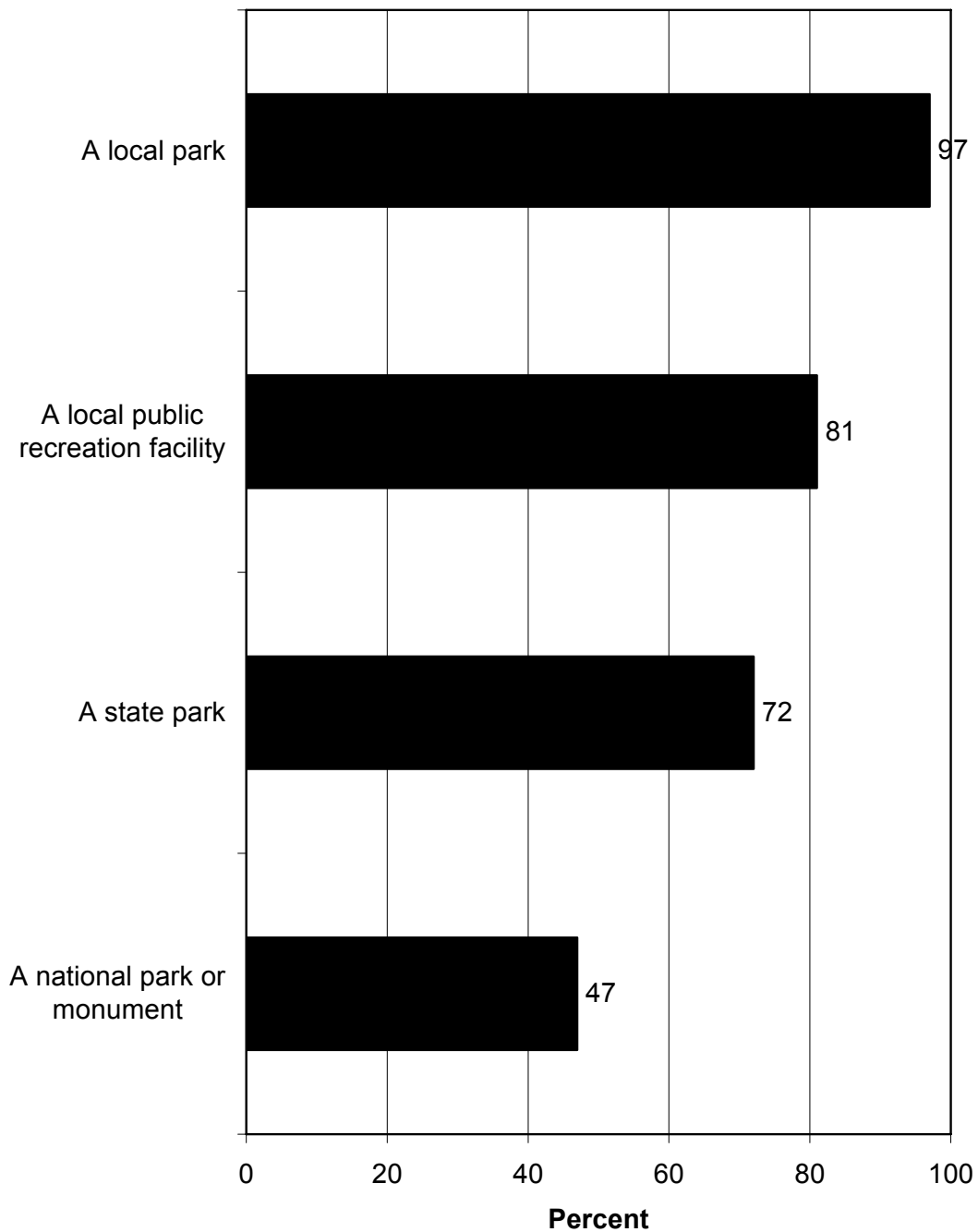
Q60. Why haven't you visited any public parks, recreation areas, or facilities in Missouri in the last 2 years? (Asked of those who did not visit a public park, recreation area, or facility.)
(Missouri residents)



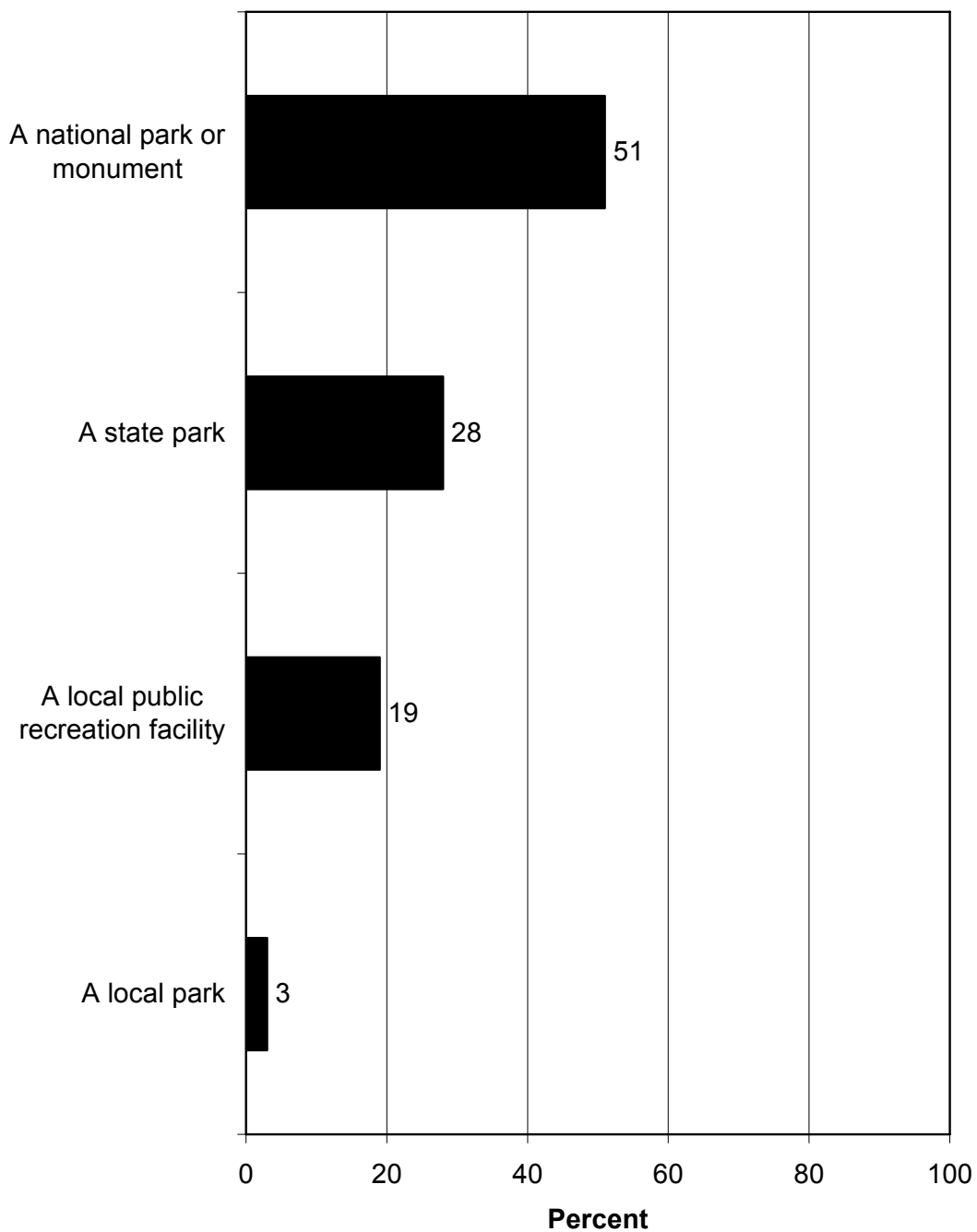
**Percent who indicated that they frequently visited
the park type in Missouri in the past 2 years.
(Professionals)**



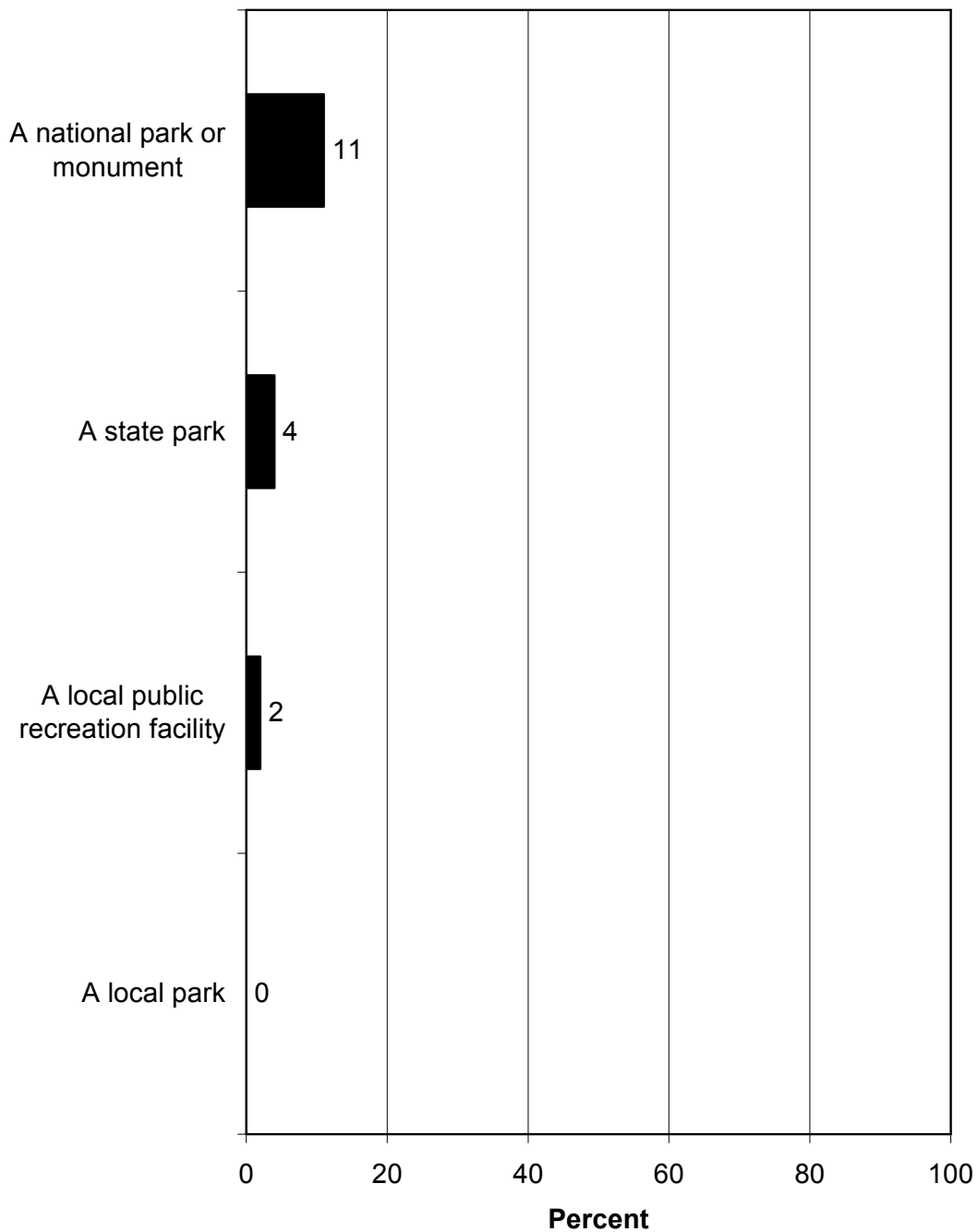
Percent who indicated that they frequently or sometimes visited the park type in Missouri in the past 2 years. (Professionals)



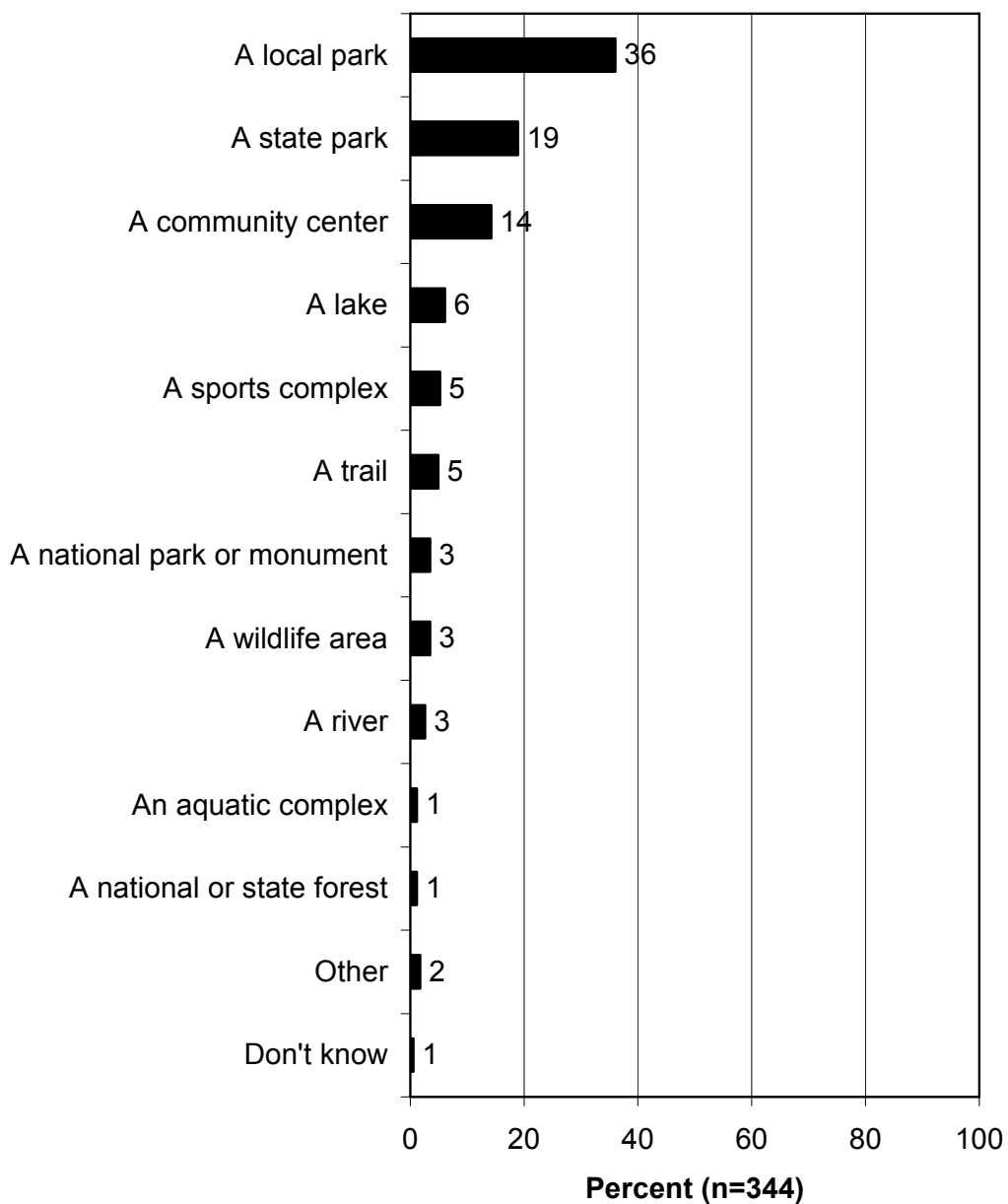
**Percent who indicated that they rarely or never
visited the park type in Missouri in the past 2 years.
(Professionals)**



**Percent who indicated that they never visited the
park type in Missouri in the past 2 years.
(Professionals)**



Q12. Can you please indicate the type of public park, area, or recreation facility you last visited in Missouri? (Asked of those who have visited a public park, area, or facility in Missouri within the past 2 years.) (Professionals)



IMPORTANCE OF AND VALUES ASSOCIATED WITH RECREATION

- The overwhelming majority of Missouri residents (93%) indicate that recreational activities or things they do in their non-work time are *very* or *somewhat* important to their overall quality of life, with most of those responses being *very* important (62%). Only 6% indicate that they are not important.
 - Nearly all professionals surveyed (98%) indicate that recreational activities or things they do in their non-work time are *very* or *somewhat* important to their overall quality of life, with most of those responses being *very* important (71%).
- In an open-ended question, Missouri residents were asked what they think of when they think of parks and recreation. Responses ranged widely, with some people giving broad responses and other people naming specific sports or activities. The most common responses relate to park facilities and/or the actual parks themselves (33%). Other common topics named include ball fields and/or leagues (20%), playgrounds (16%), hiking/trails (16%), wildlife (11%), and swimming (11%). The graph shows the extensive list of things named when residents think of parks and recreation.
 - Professionals were also asked this question. Their top responses are outdoors/open and/or green spaces (23%), parks (20%), responses related to places (not necessarily parks) that have a variety of activities (19%), hiking/trails (17%), fun/enjoyment (17%), and family/children (17%).

- The survey listed 16 possible benefits of parks and recreation activities and asked residents to indicate the importance of each, using a four-point scale (*very important*, *somewhat important*, *not very important*, *not at all important*). The survey randomized the beginning point in the series of potential benefits to minimize “order” bias. These are listed in the text box below.
- Three of them stand out markedly above the rest in the percentage who rate each as *very important*: cleaner air and water (79%), healthy childhood development (78%), and positive family activities (75%).
 - A middle tier is below these top three, consisting of items with at least 60% of residents saying the potential benefit is *very important*: providing wildlife habitat (68%), health and fitness (67%), a sense of peace and stress relief (64%), providing employment opportunities (62%), and protecting natural and historic resources (60%).
 - The ranking is not easily summarized, as the top possible benefits vary widely and include those that relate to ecological values (e.g., cleaner air and water, providing wildlife habitat), those that relate to the family (healthy childhood development, positive family activities), those that relate to community values (providing employment opportunities), and those that relate to receiving a personal benefit (health and fitness, a sense of peace and stress relief).

Possible Benefits of Parks and Recreation Activities About Which the Survey Asked

- 72. Health and fitness
- 73. Connecting with nature
- 74. A sense of peace and stress relief
- 75. Opportunities for play and competition
- 76. Positive family activities
- 77. Healthy childhood development
- 78. Providing cultural awareness
- 79. Opportunities to be with people
- 80. Attracting businesses
- 81. Promoting tourism
- 82. Enhancing property values
- 83. Providing employment opportunities
- 84. Preserving open space
- 85. Protecting natural and historic resources
- 86. Providing wildlife habitat
- 87. Cleaner air and water

- Professionals, too, were asked to rate the potential benefits of parks and recreation activities.
 - Three have more than 70% saying each is a *very* important benefit: health and fitness (80%), positive family activities (75%), and healthy childhood development (71%).
 - A middle tier below these three, but each with at least a majority saying it is a *very* important benefit, consists of preserving open space (66%), a sense of peace and stress relief (64%), cleaner air and water (63%), connections with nature (59%), protecting natural and historic resources (57%), providing wildlife habitat (56%), and opportunities for play and competition (51%).
 - As with the resident survey, these results are not easily summarized, with the top possible benefits varying quite widely.

- The tabulation on the following page looks at how residents and professionals compare on perceived benefits of parks and recreation activities. The tabulation shows the percentage saying the benefit is *very* important and its rank in parentheses.
 - Residents are more likely than are professionals to say that the following are *very* important benefits of parks and recreation activities:
 - Providing cultural awareness (45% among residents, and 27% among professionals; the rank, however, is the same).
 - Opportunities to be with people (53% vs. 29%; although the rank is not greatly different).
 - Attracting business (46% vs. 30%; although the rank is not greatly different).
 - Providing employment opportunities (62% vs. 34%; the rank is much higher among residents).
 - Cleaner air and water (79% vs. 63%; the rank is much higher among residents).
 - On the other hand, professionals are more likely than are residents to say that the following is a *very* important benefits of parks and recreation activities:
 - Health and fitness (67% among residents, compared to 80% among professionals; the rank is higher among professionals).

Comparison of Perceived Benefits of Parks and Recreation Activities

	Percent of residents who say the benefit is very important (and its rank)	Percent of professionals who say the benefit is very important (and its rank)
Health and fitness	67 (5)	80 (1)
Connecting with nature	56 (10)	59 (7)
A sense of peace and stress relief	64 (6)	64 (5)
Opportunities for play and competition	48 (13 t)	51 (10)
Positive family activities	75 (3)	75 (2)
Healthy childhood development	78 (2)	71 (3)
Providing cultural awareness	45 (16)	27 (16)
Opportunities to be with people	53 (11)	29 (15)
Attracting businesses	46 (15)	30 (14)
Promoting tourism	49 (12)	43 (12)
Enhancing property values	48 (13 t)	45 (11)
Providing employment opportunities	62 (7)	34 (13)
Preserving open space	58 (9)	66 (4)
Protecting natural and historic resources	60 (8)	57 (8)
Providing wildlife habitat	68 (4)	56 (9)
Cleaner air and water	79 (1)	63 (6)

- The survey asked respondents to indicate the importance of having parks and open space nearby if they were to choose a new residence. The large majority (84%) indicate that it would be important, including slightly more than half who say it would be *very* important (52%).
 - Results of the professionals' survey are similar: 94% indicate that it would be important, including more than half who say it would be *very* important (55%).
- A final way to explore the values associated with parks and recreation entailed reading statements to Missouri residents and asking them if they agree or disagree with each, using a five-point scale (strongly agree, agree, neutral, disagree, strongly disagree). The statements are generally favorable toward parks and recreation and/or suggest an obligation for society to have parks and recreation, with the exception of two statements that are not favorable toward parks and recreation. The survey randomized the beginning point in the series of

statements for each respondent to minimize “order” bias. The statements are shown in the text box below.

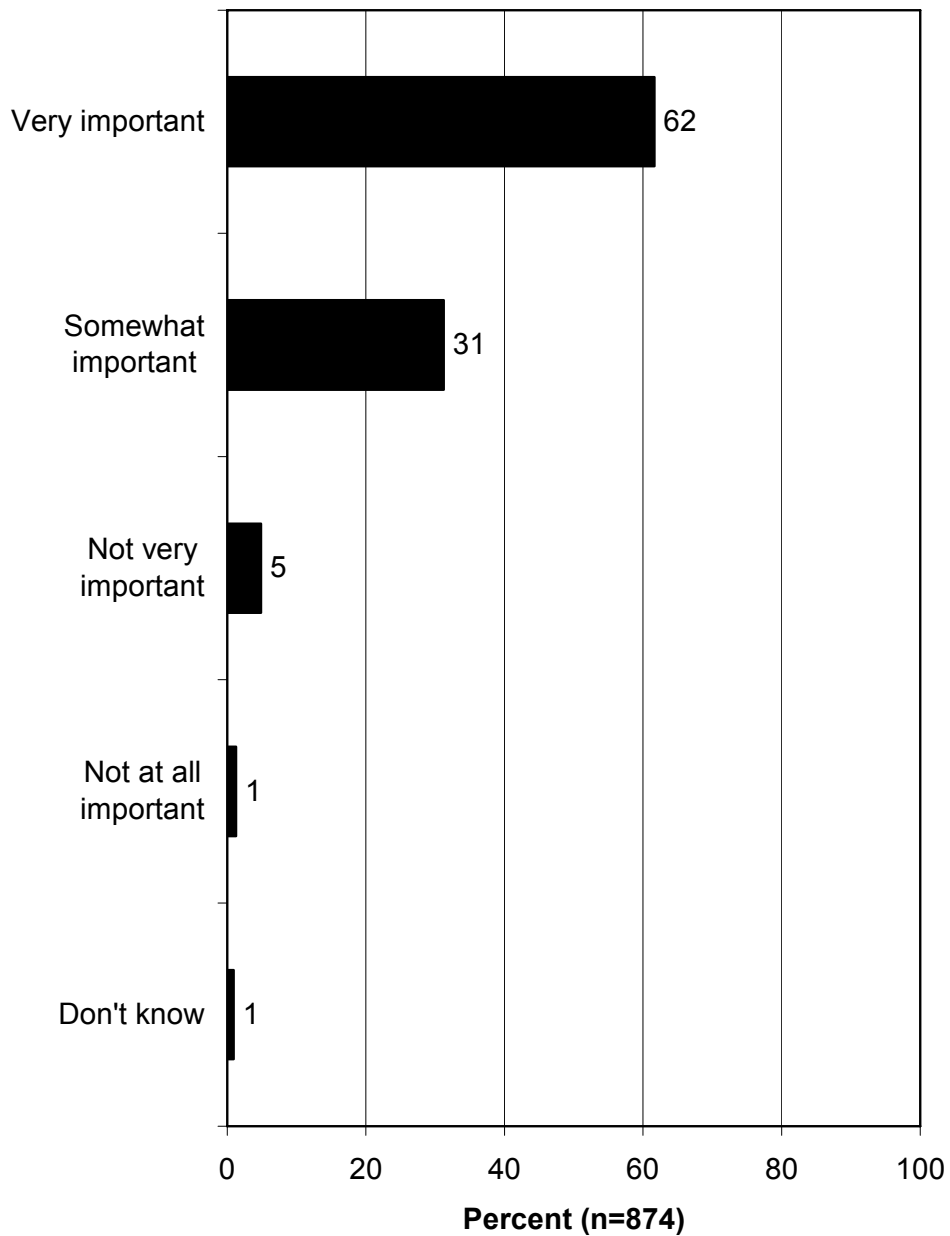
- A majority indicate that they *strongly agree* or *agree* with each statement, with the exception of the two that are not favorable toward parks and recreation. In particular, four statements have 85% or more in agreement:
 - Spending time in the outdoors leads to happier and healthier lives. (95%)
 - Parks, recreation, and open space are important for people to improve and maintain good health. (90%)
 - Local communities in Missouri have a responsibility to preserve and maintain open space. (88%)
 - Missouri has a responsibility to preserve and maintain open space statewide. (85%)
- Of interest is that the two statements that are not favorable (although they are not necessarily *unfavorable*) toward parks and recreation have only a little more than a third agreeing with them.
 - Parks, open spaces, greenways, and conservation areas are a luxury rather than a necessity. (38%)
 - Public recreation programs are a luxury rather than a necessity. (38%)
- Note that these latter *statements* are not favorable to parks and recreation; these *results*, however, suggest a favorable attitude toward parks and recreation, as 49% *disagree* that parks, open spaces, greenways, and conservation areas are a luxury rather than a necessity and 48% *disagree* that recreation programs are a luxury rather than a necessity.

Statements Relating To Parks and Recreation About Which the Survey Asked

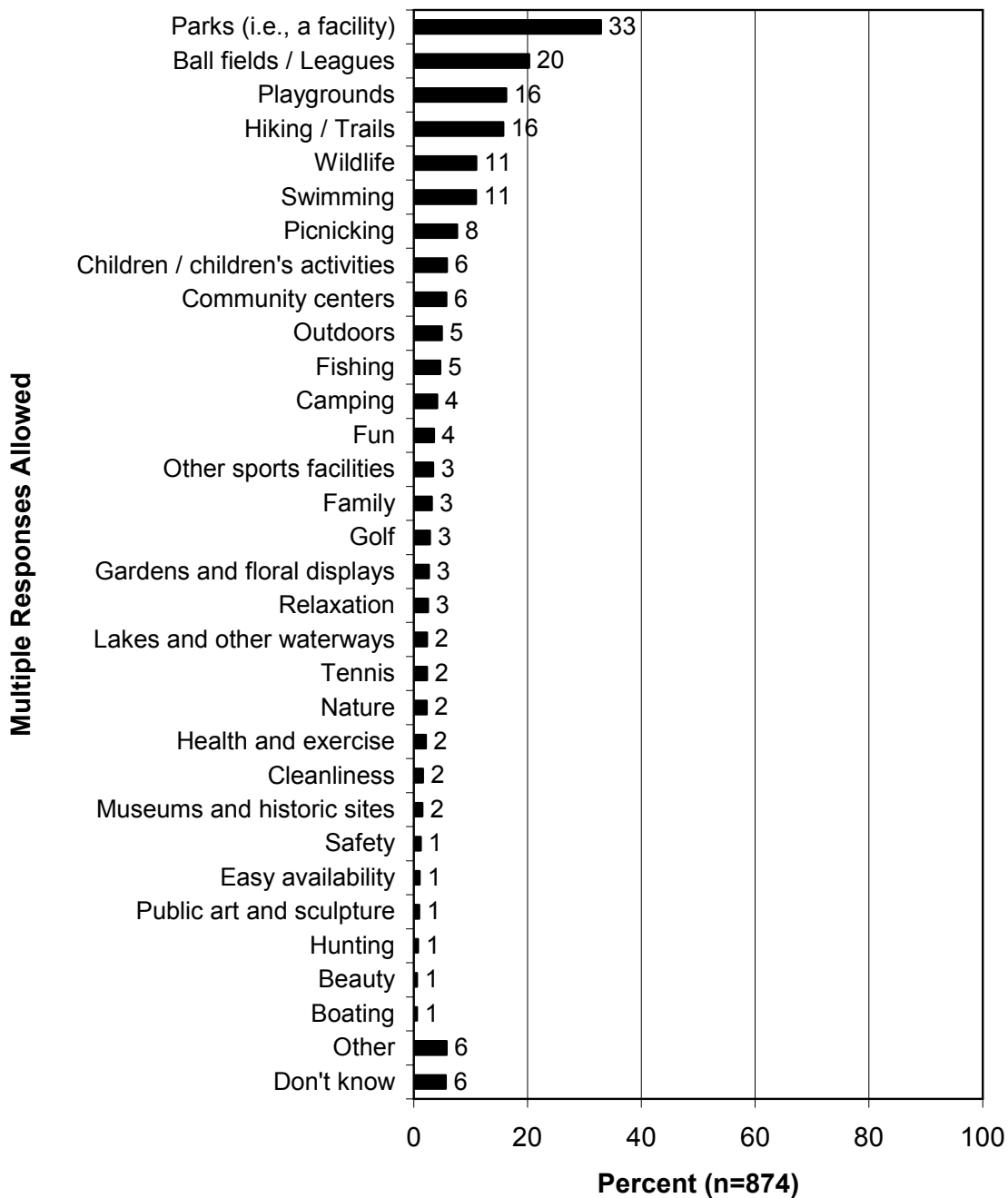
- 106. Parks, recreation, and open space are important for people to improve and maintain good health.
- 107. Local communities in Missouri have a responsibility to preserve and maintain open space.
- 108. Missouri has a responsibility to preserve and maintain open space statewide.
- 109. Parks and open space increase property values in your community.
- 110. Parks and open space are important to your community's economy.
- 111. Parks, open spaces, greenways, and conservation areas should be budget priorities in your community even during economic hard times.
- 112. Parks, open spaces, greenways, and conservation areas are a luxury rather than a necessity.
- 113. Spending time in the outdoors leads to happier and healthier lives.
- 114. Public recreation programs are a luxury rather than a necessity.

- The above statements were also read to professionals, and they used the same scale regarding their agreement or disagreement with the statements.
 - A majority indicate that they *strongly agree* or *agree* with each statement, with the exception of the two that are not favorable toward parks and recreation. In particular, five statements have 90% or more in agreement:
 - Parks, recreation, and open space are important for people to improve and maintain good health. (96%)
 - Spending time in the outdoors leads to happier and healthier lives. (95%)
 - Local communities in Missouri have a responsibility to preserve and maintain open space. (93%)
 - Missouri has a responsibility to preserve and maintain open space statewide. (93%)
 - Parks and open spaces increase property values in your community. (90%)
 - The two statements that are not favorable toward parks and recreation have very small percentages agreeing with them (also shown is the percentage in *disagreement*).
 - Public recreation programs are a luxury rather than a necessity. (14% agree; 71% disagree)
 - Parks, open spaces, greenways, and conservation areas are a luxury rather than a necessity. (13% agree; 74% disagree)

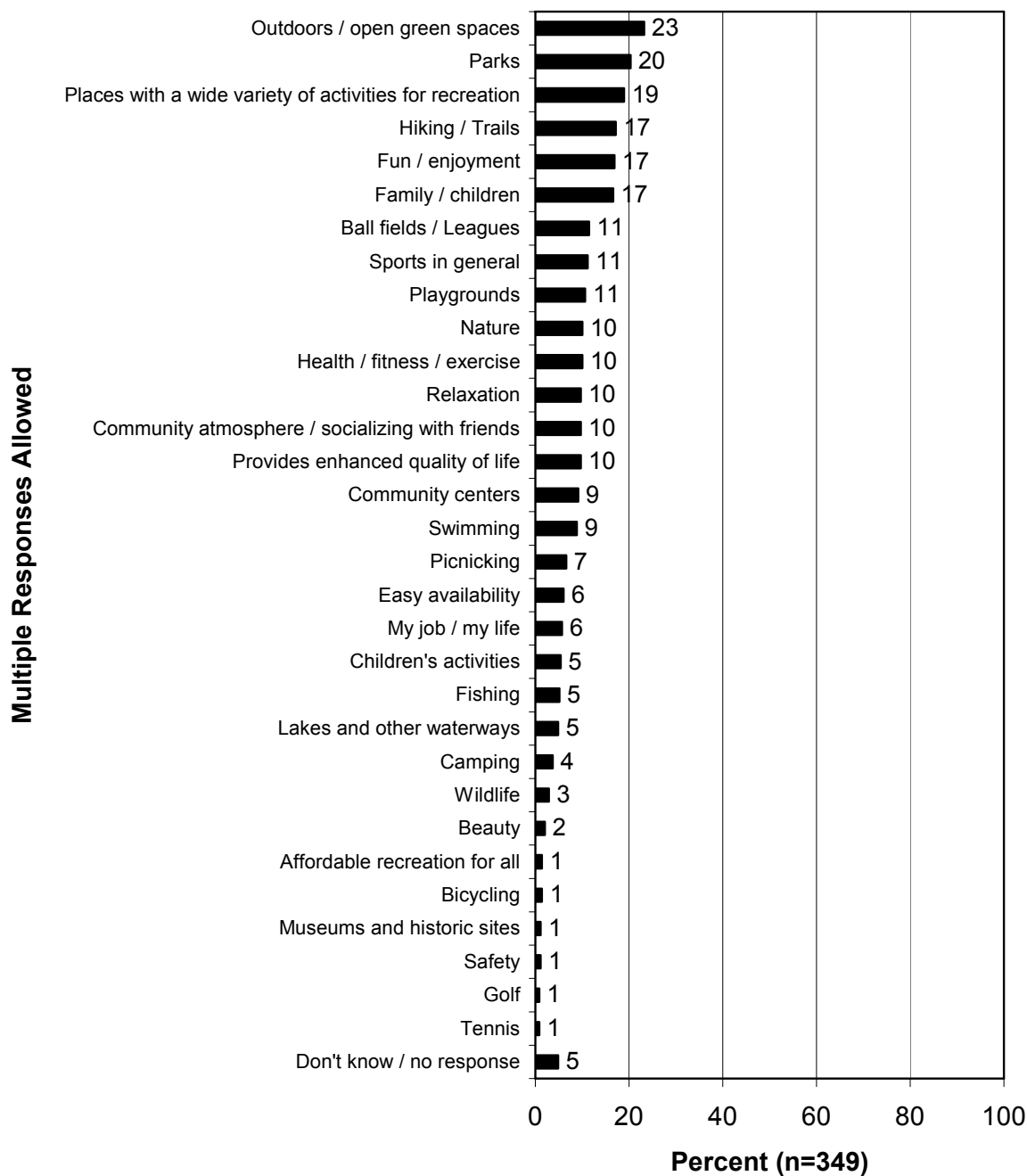
**Q44. Overall, how important are recreational activities or things you do in your non-work time to your overall quality of life?
(Missouri residents)**



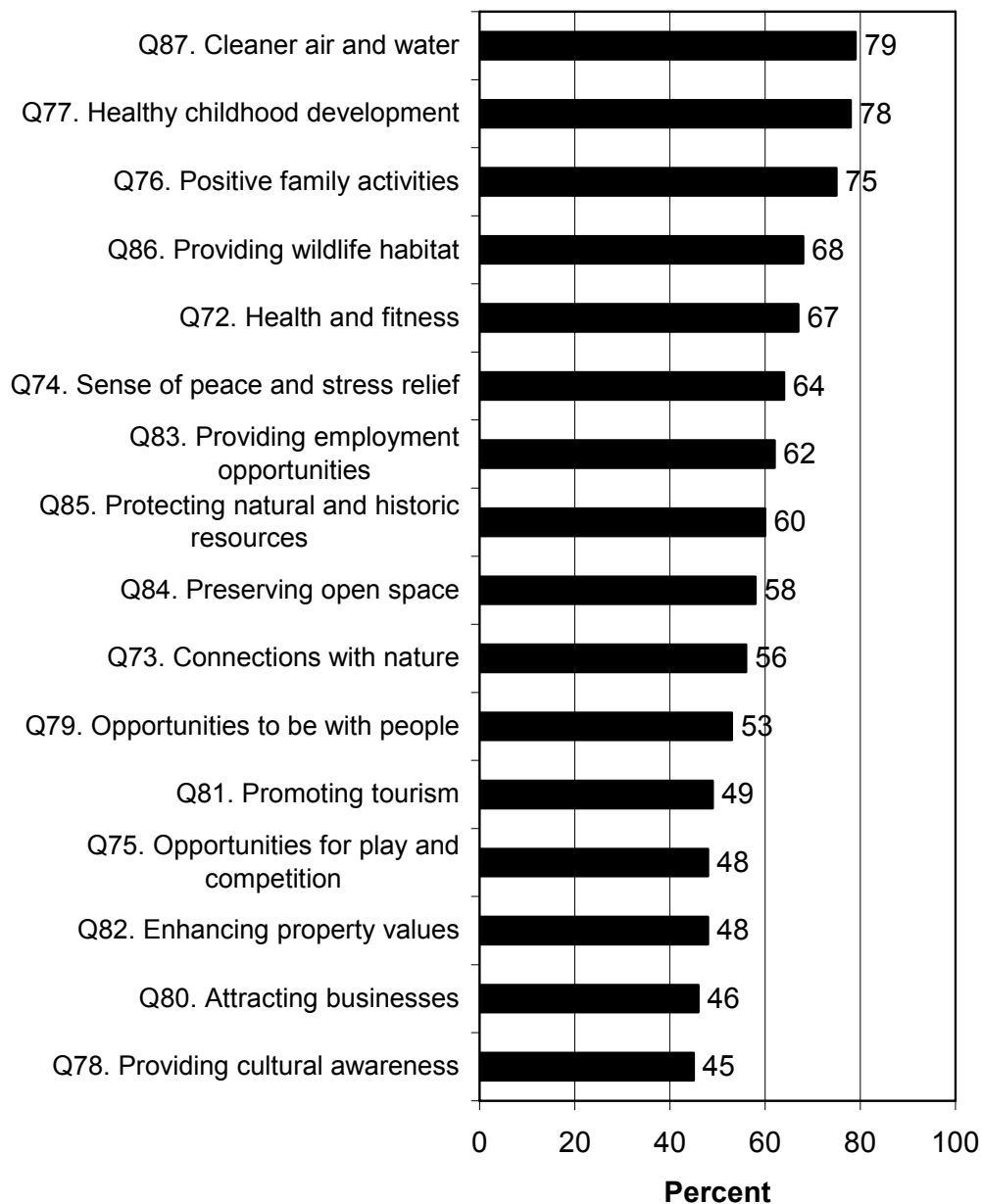
**Q47. What do you think of when you think of parks and recreation?
(Missouri residents)**



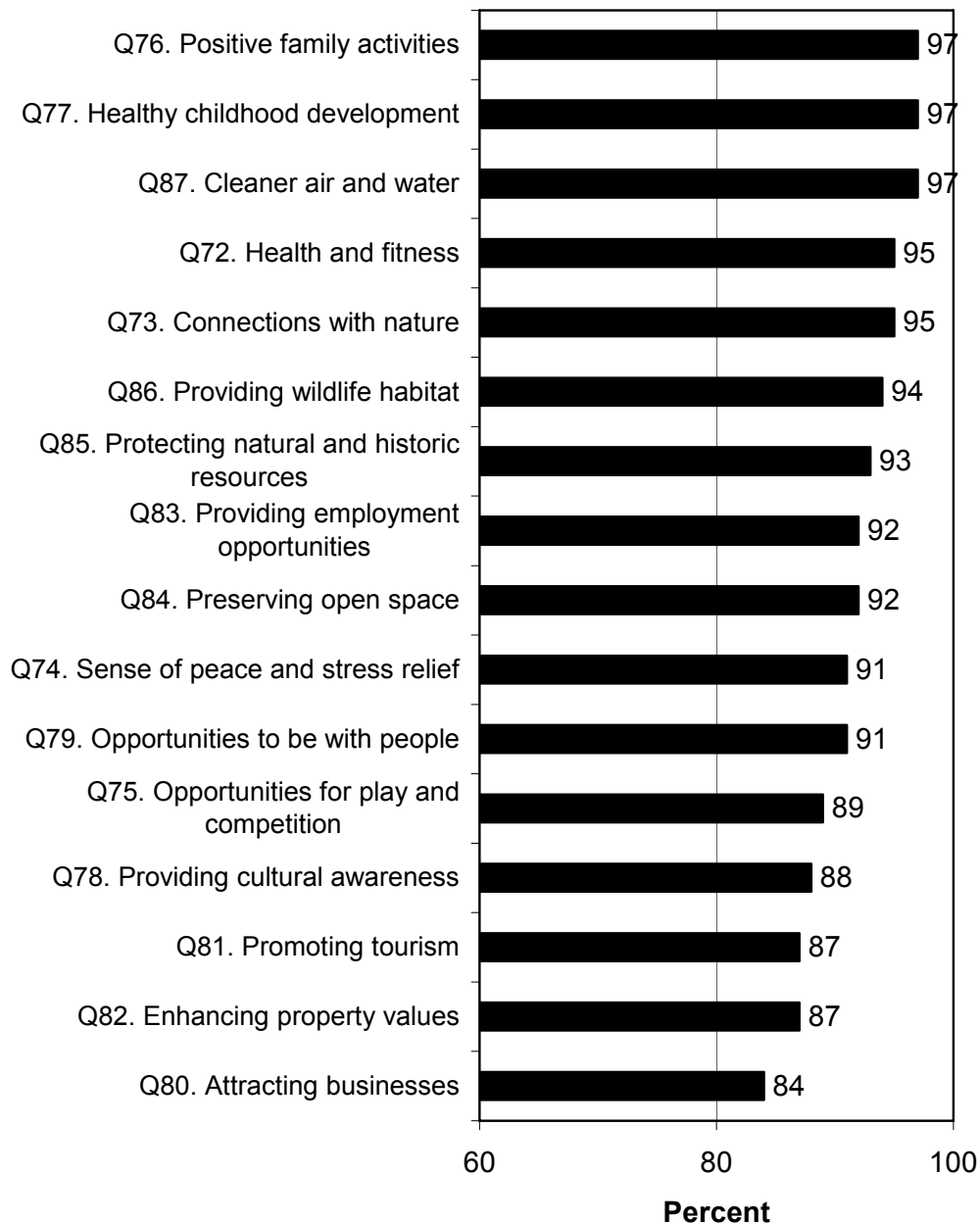
Q7. What do you think of when you think of Parks and Recreation? (Professionals)



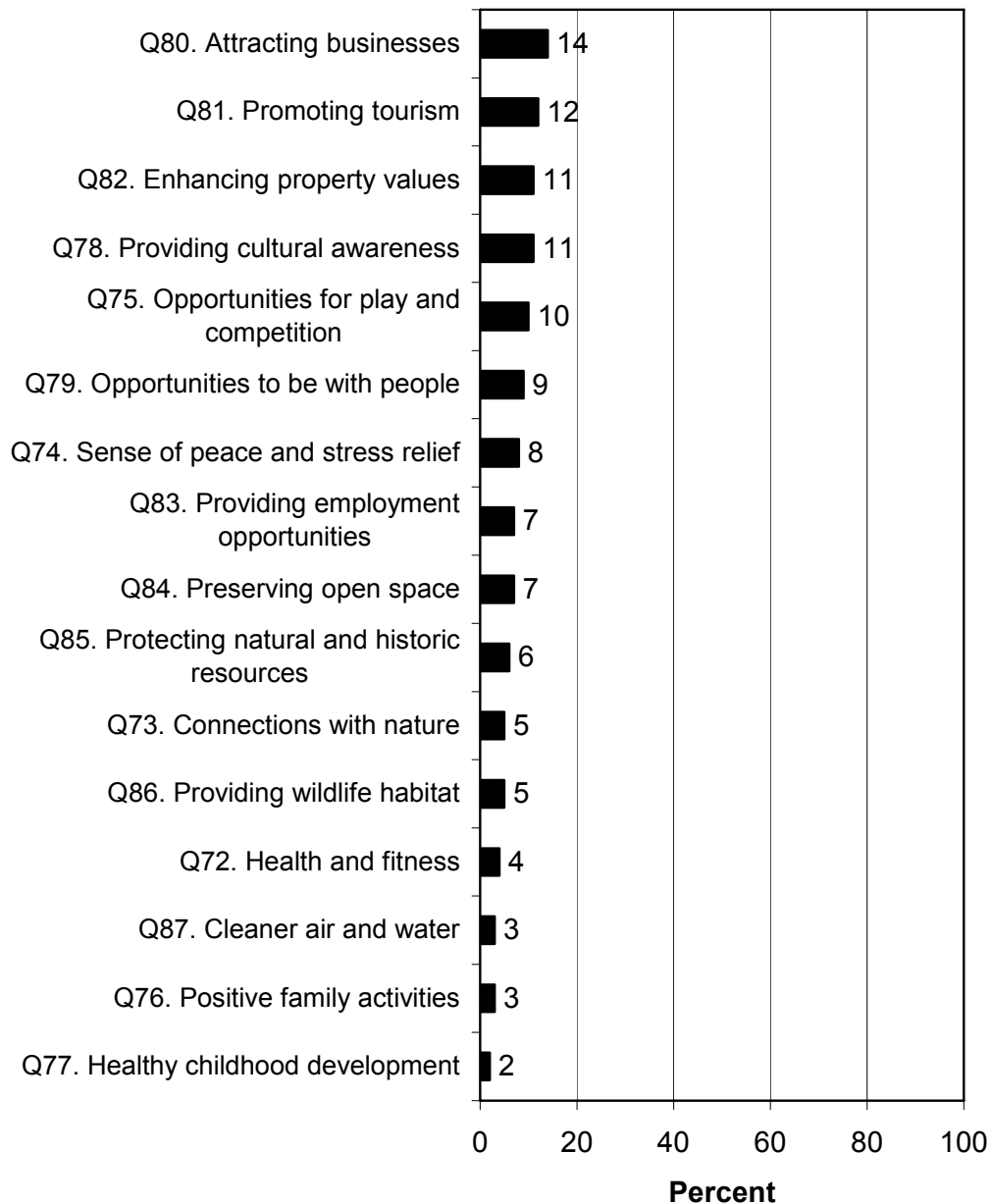
**Percent who indicated that each of the following is
a very important benefit of parks and recreation
activities.
(Missouri residents)**



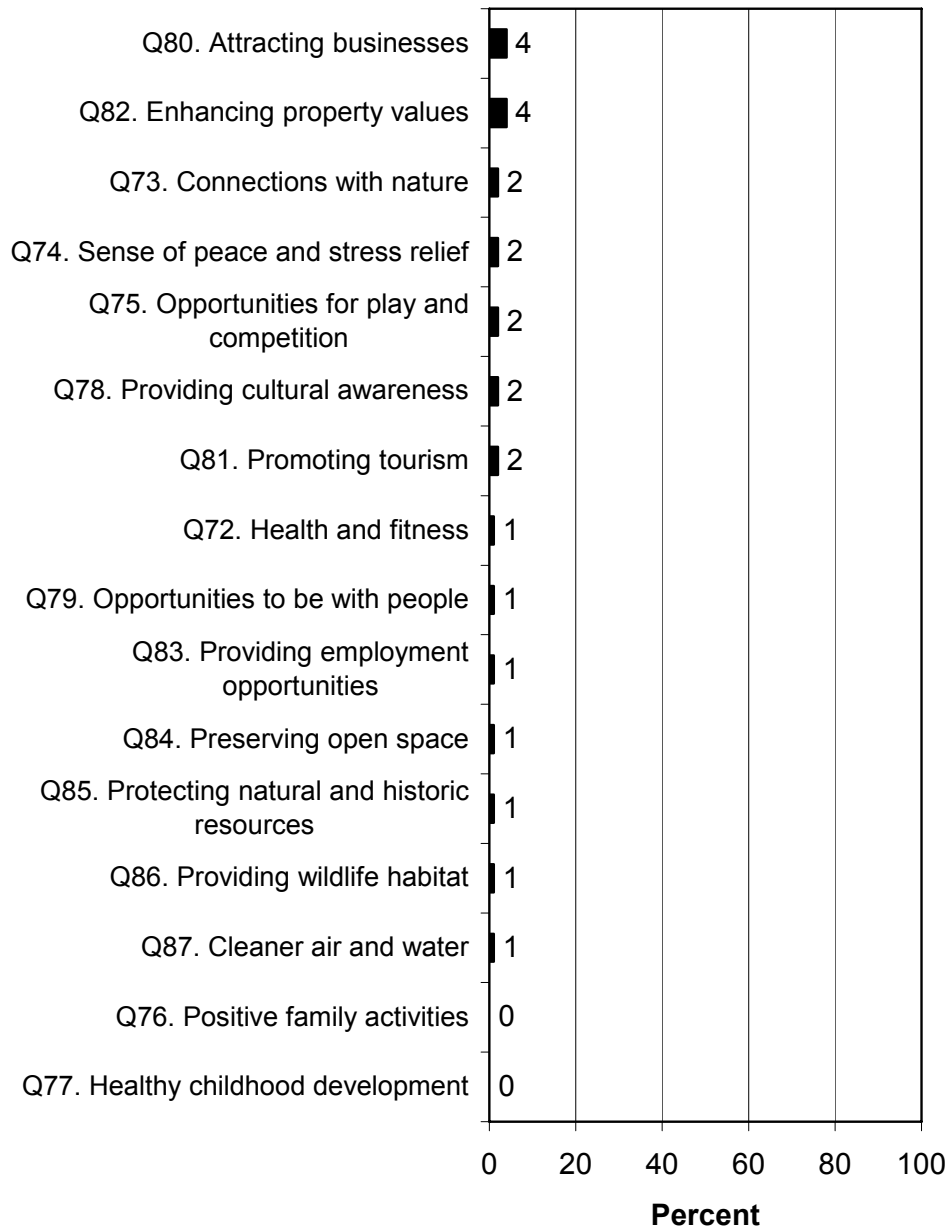
**Percent who indicated that each of the following is
a very important or somewhat important benefit of
parks and recreation activities.
(Missouri residents)**



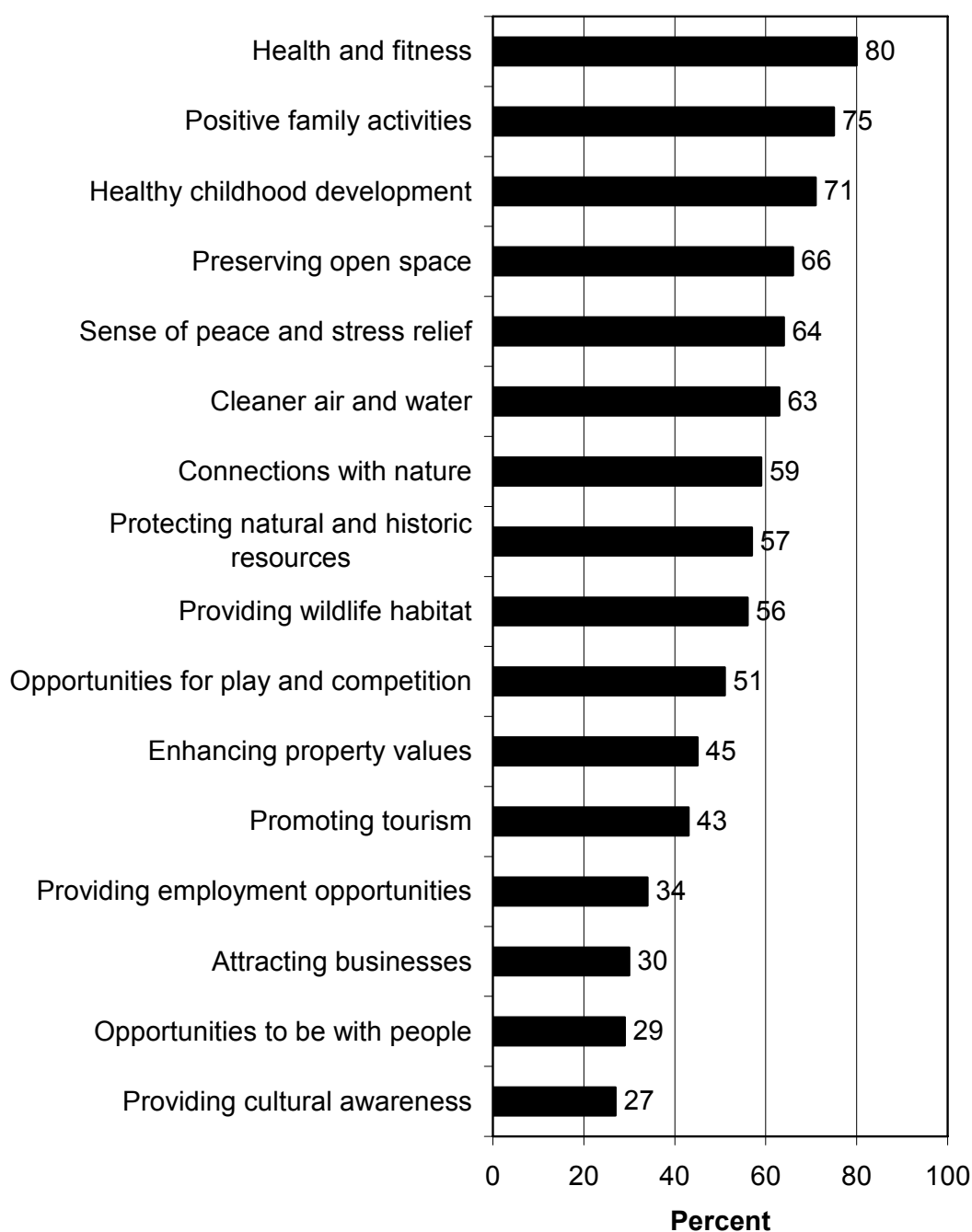
**Percent who indicated that each of the following is
not very important or not at all an important benefit
of parks and recreation activities.
(Missouri residents)**



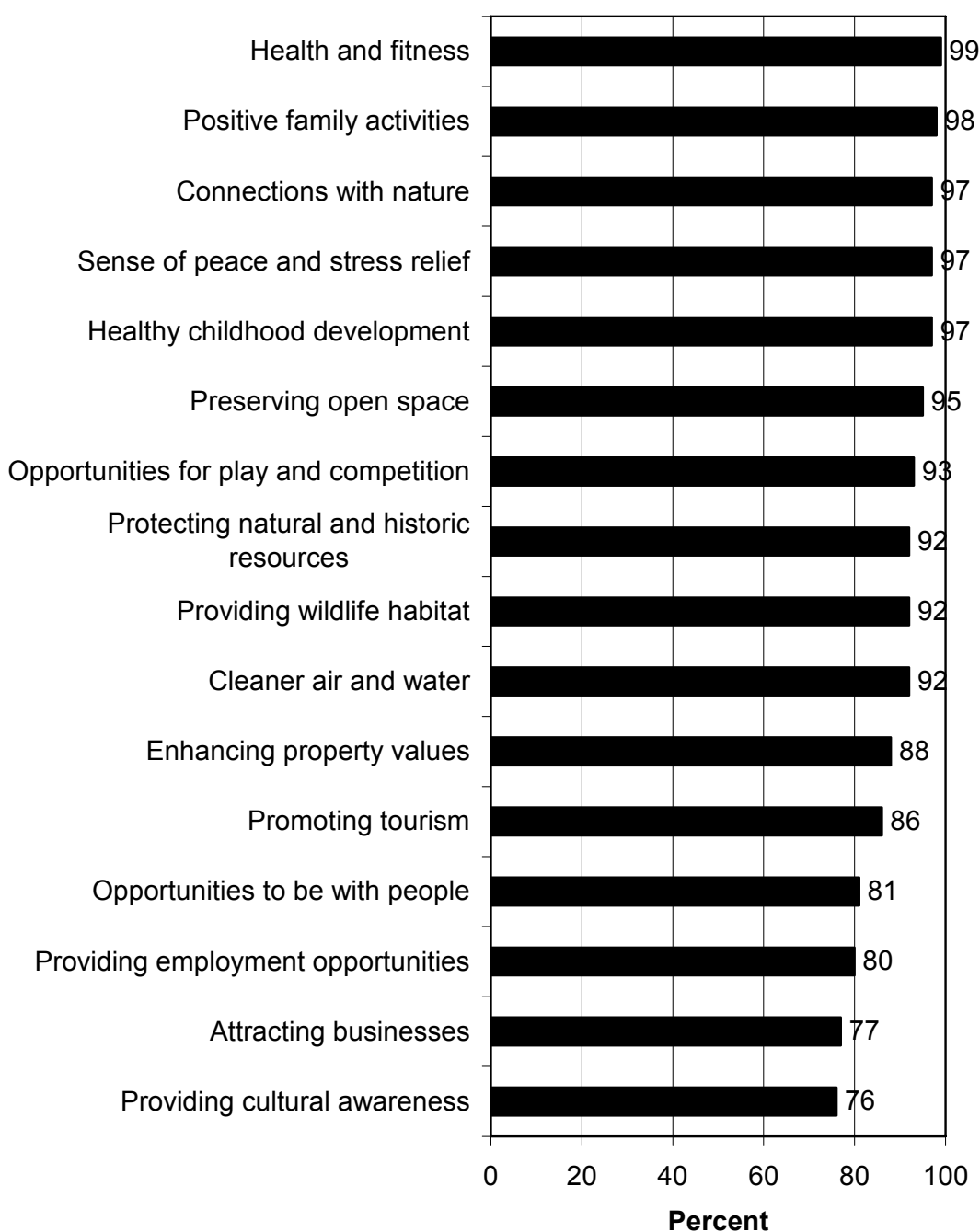
**Percent who indicated that each of the following is
not at all an important benefit of parks and
recreation activities.
(Missouri residents)**



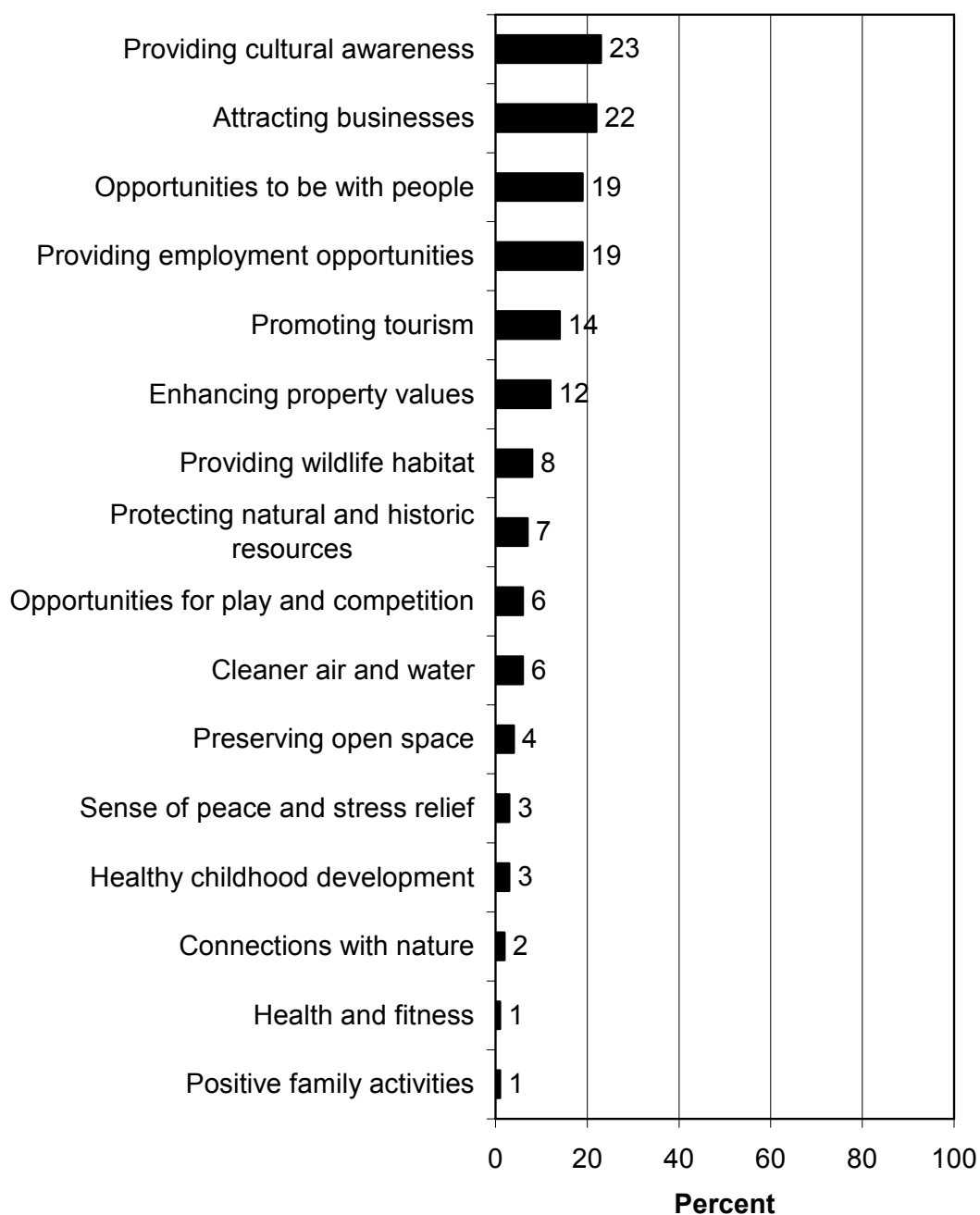
**Percent who indicated that each of the following is
a very important benefit of parks and recreation
activities. (Professionals)**



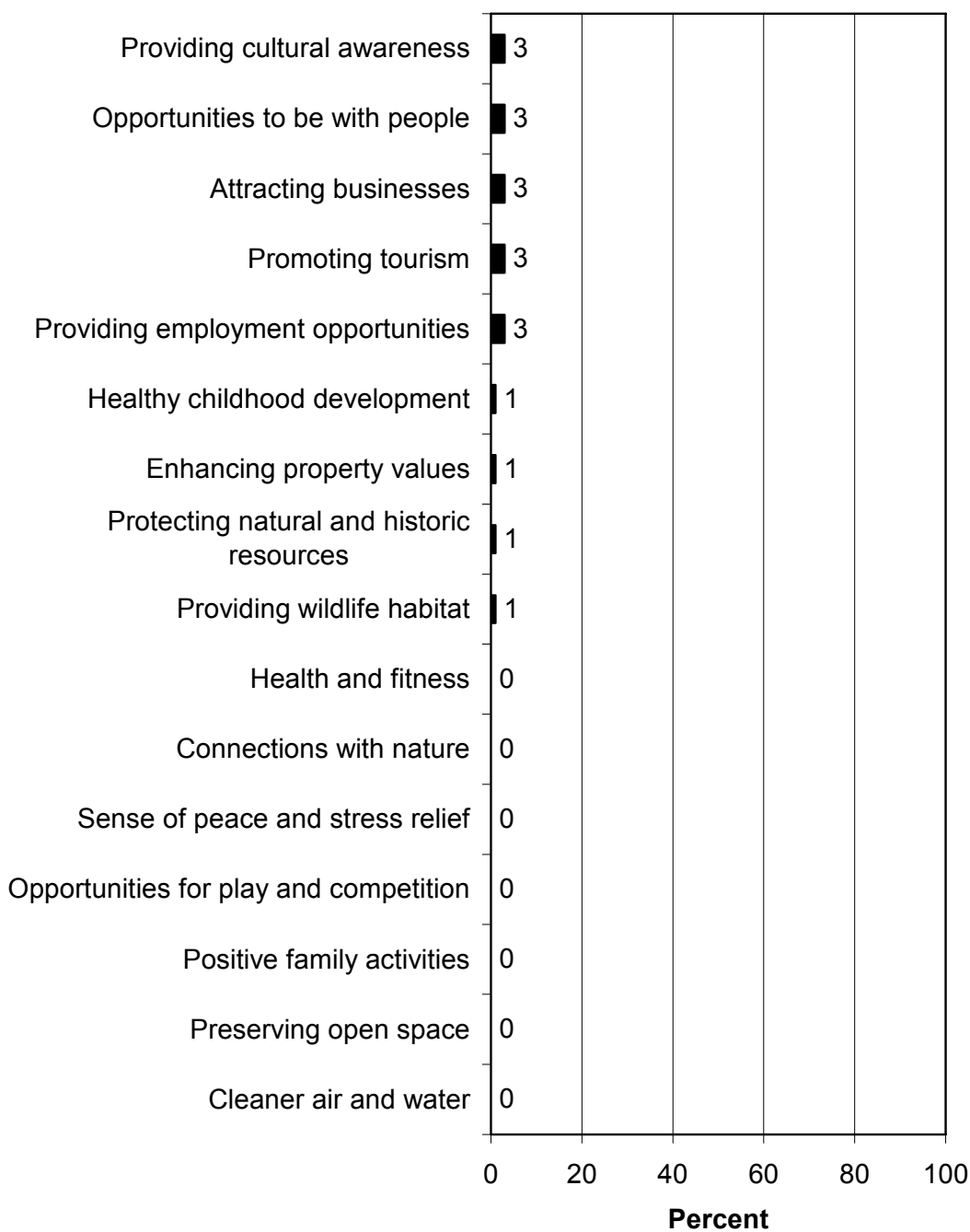
Percent who indicated that each of the following is a very important or somewhat important benefit of parks and recreation activities. (Professionals)



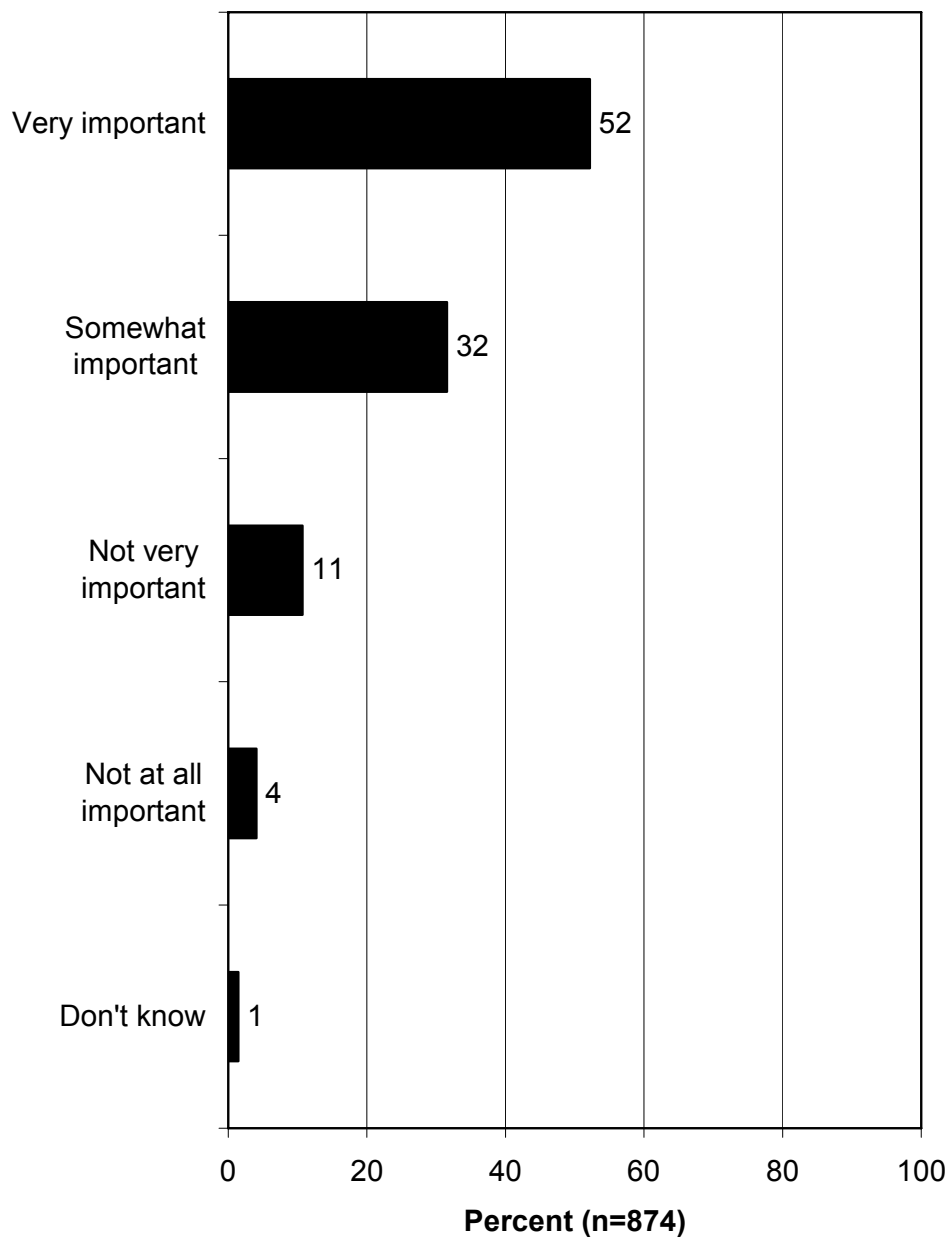
Percent who indicated that each of the following is not very important or not at all an important benefit of parks and recreation activities. (Professionals)



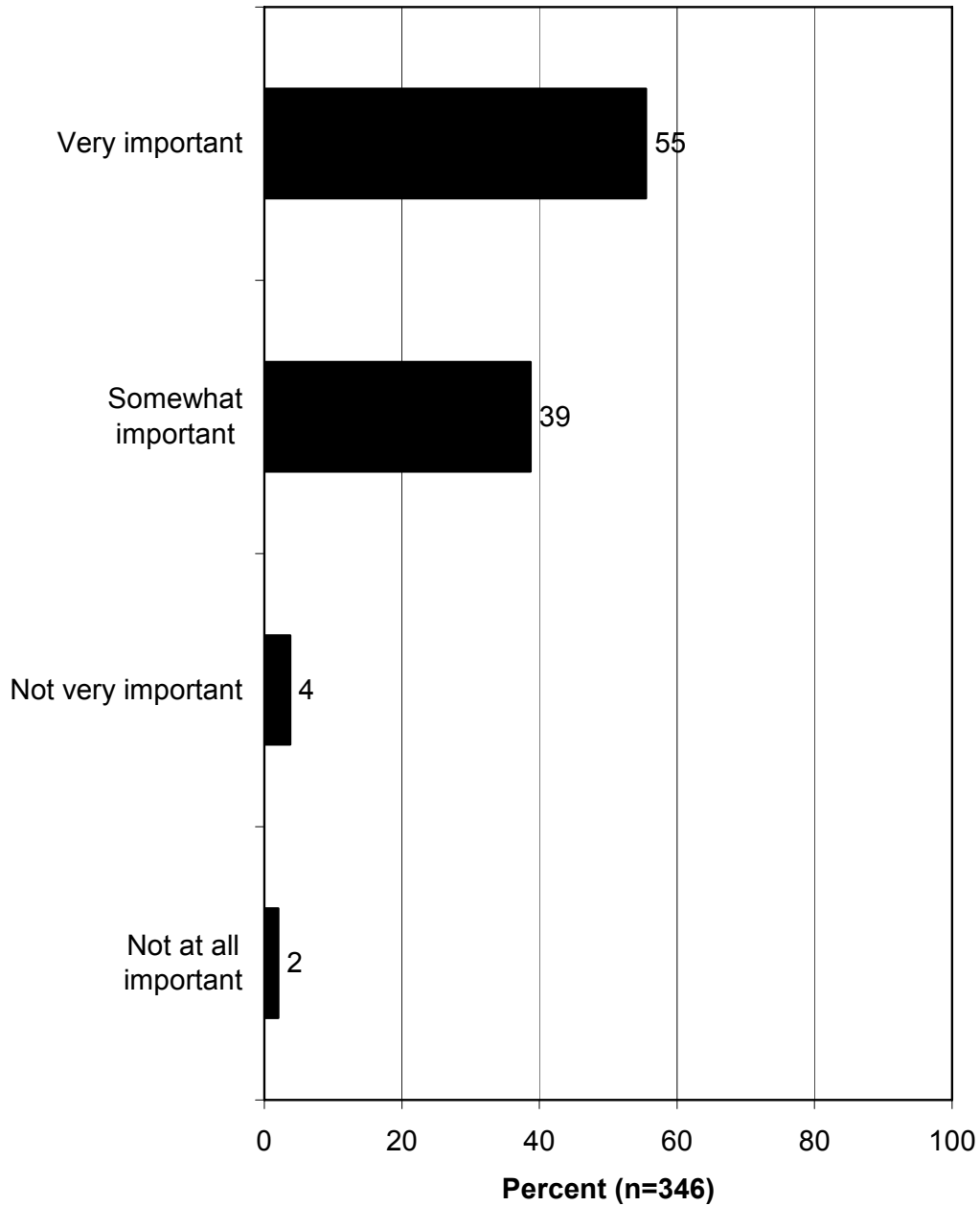
Percent who indicated that each of the following is not at all an important benefit of parks and recreation activities. (Professionals)



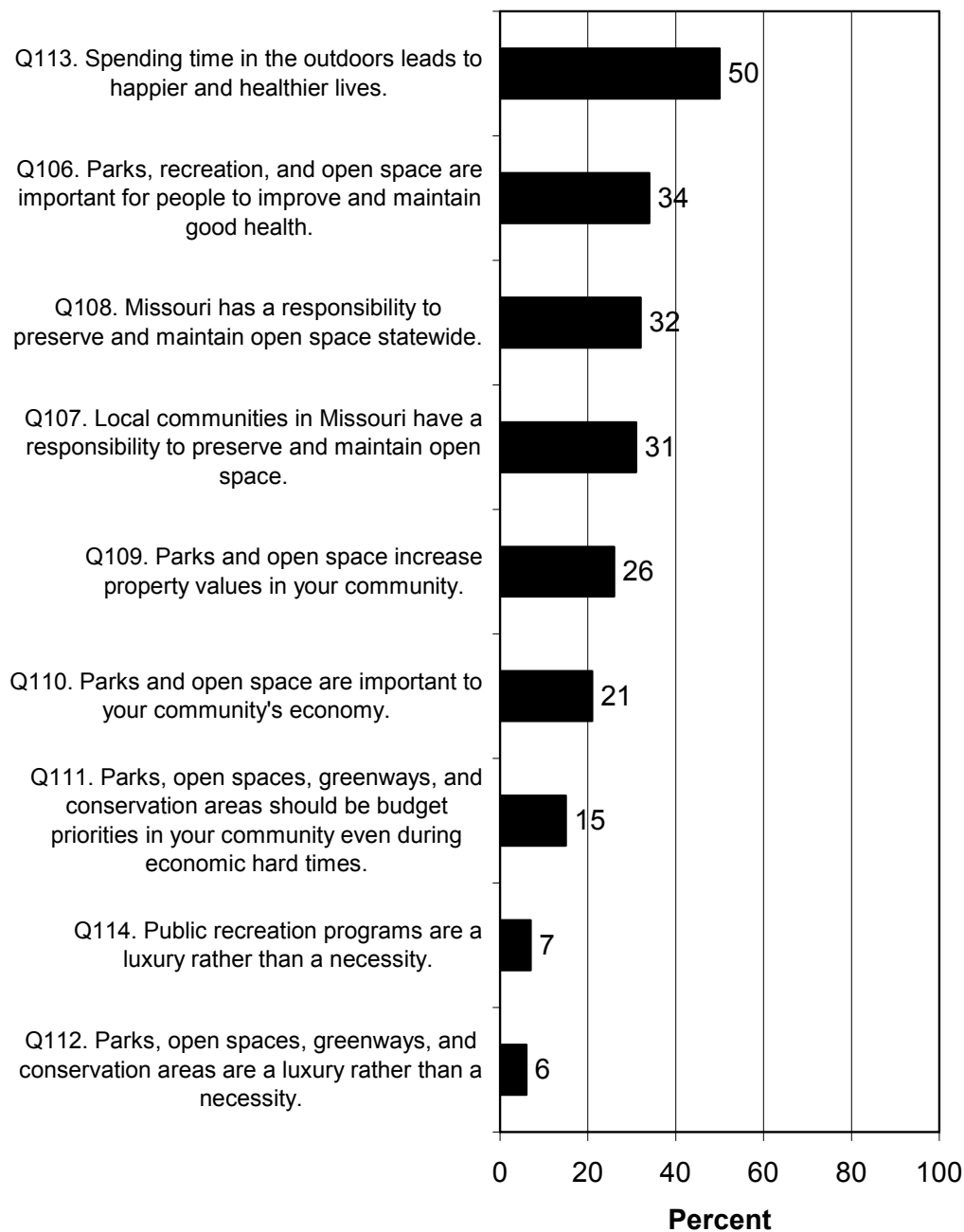
**Q88. If you were choosing a new residence, how important would it be to have parks and open space nearby?
(Missouri residents)**



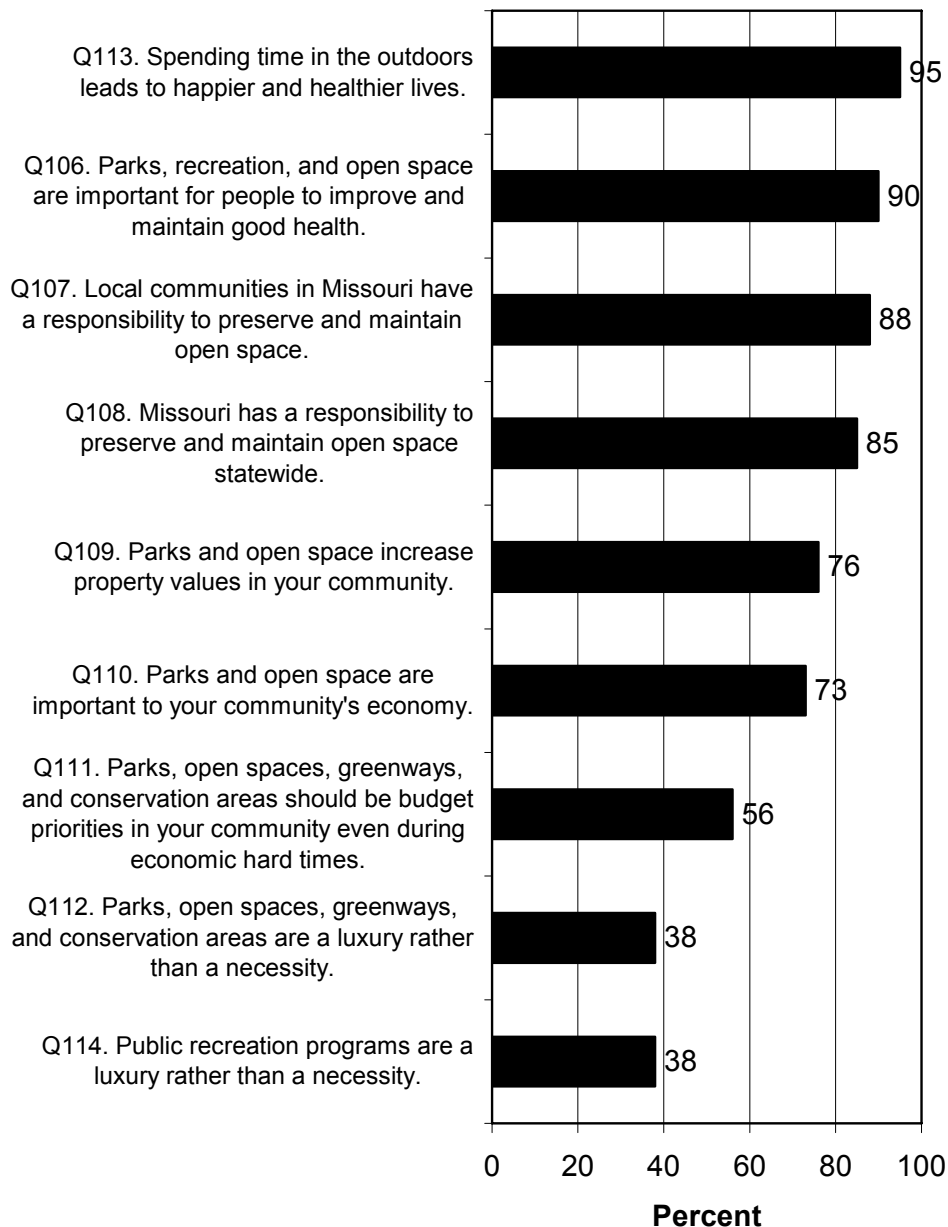
Q19. If you were choosing a new residence, how important would it be to have parks and open space nearby? (Professionals)



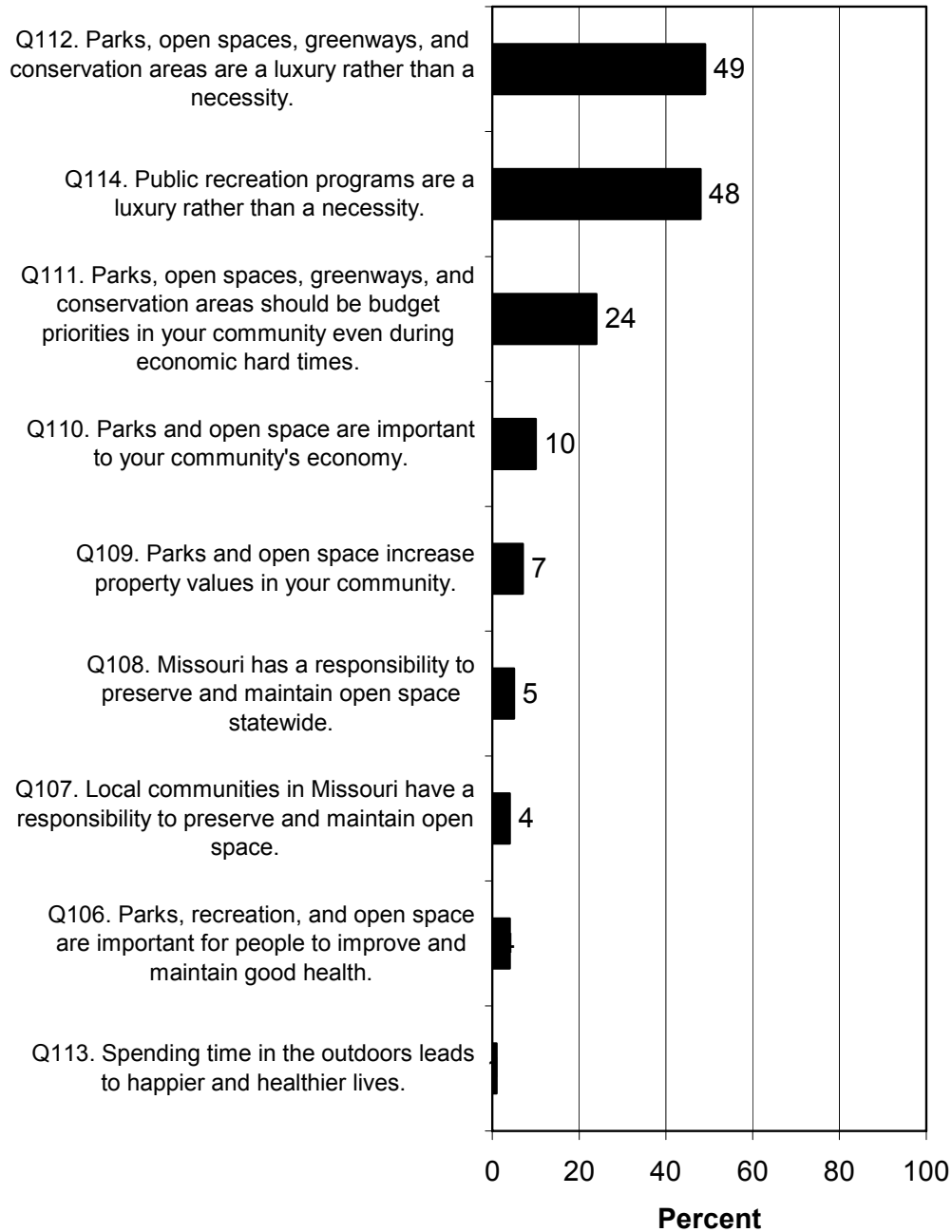
**Percent who said they strongly agree with each of
the following statements.
(Missouri residents)**



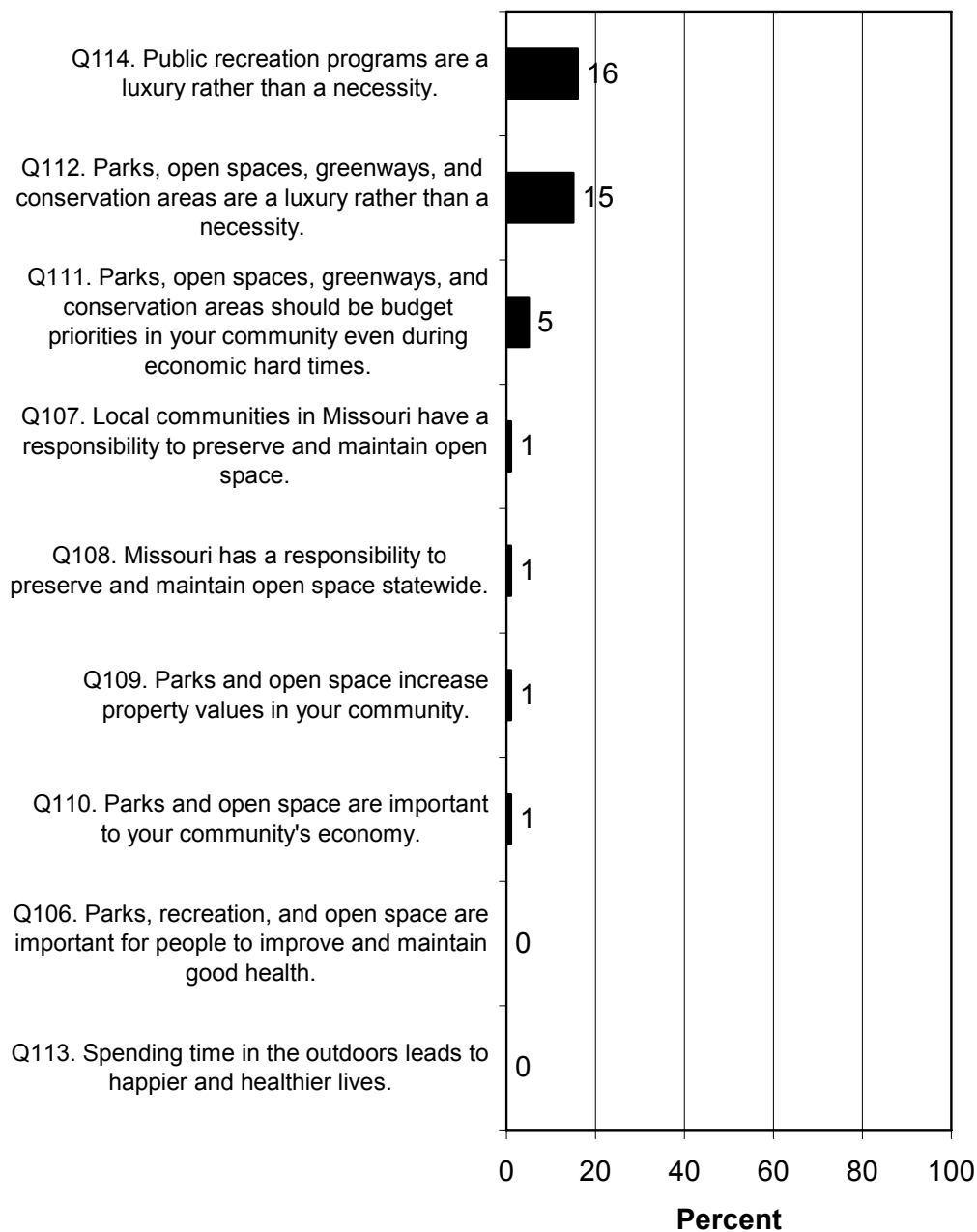
**Percent who said they strongly agree or agree with
each of the following statements.
(Missouri residents)**



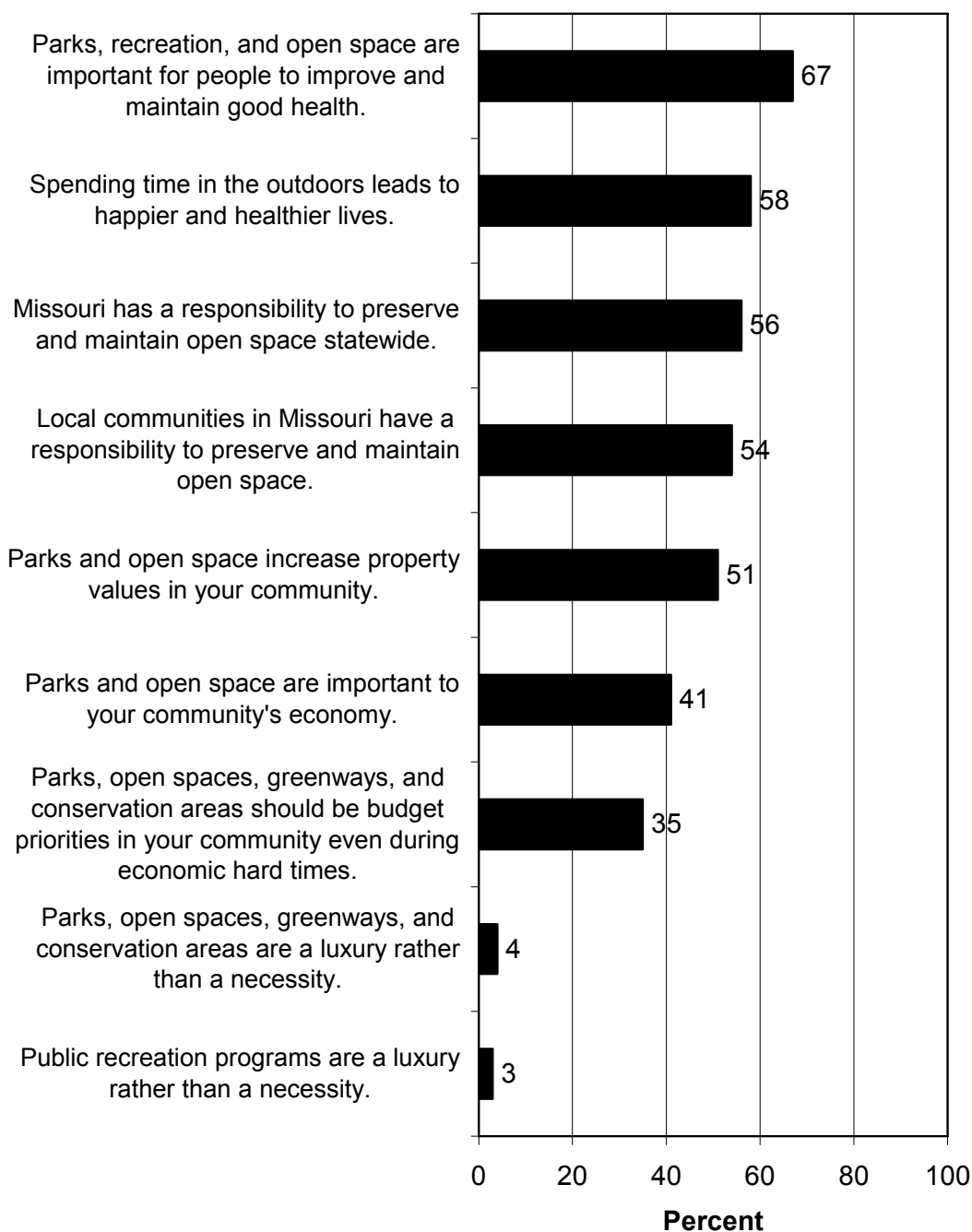
**Percent who said they disagree or strongly disagree with each of the following statements.
(Missouri residents)**



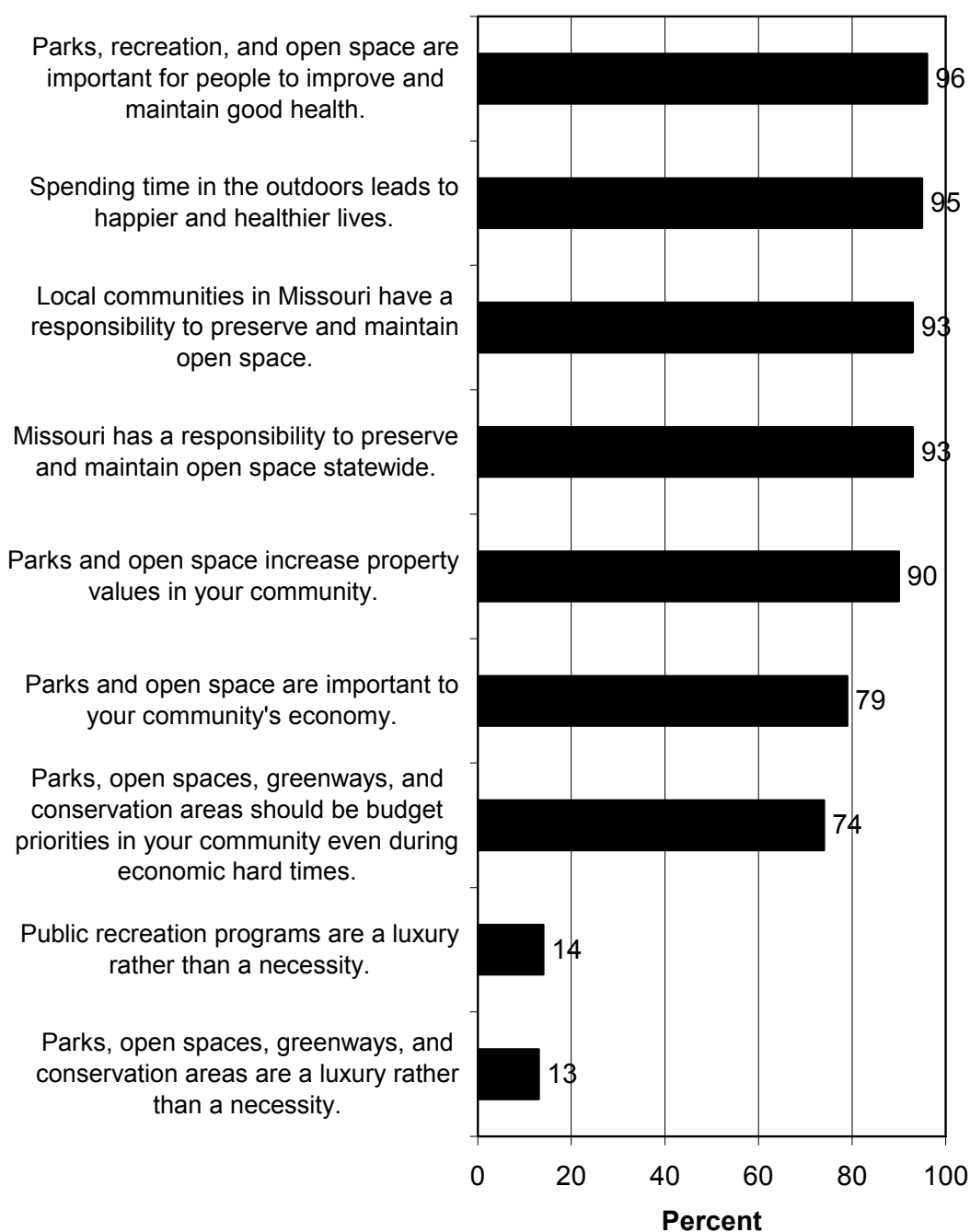
**Percent who said they strongly disagree with each
of the following statements.
(Missouri residents)**



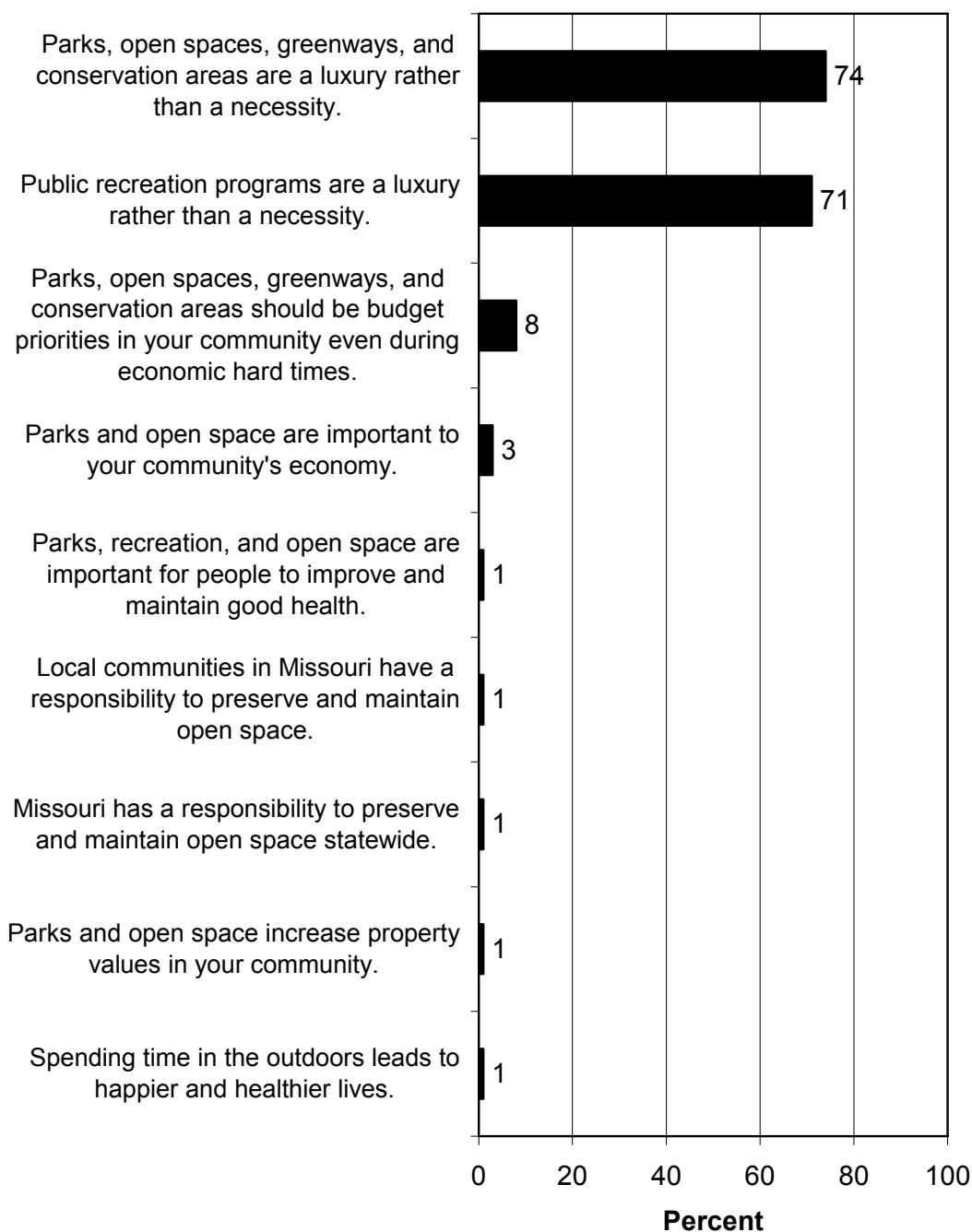
Percent who strongly agree with the following statements. (Professionals)



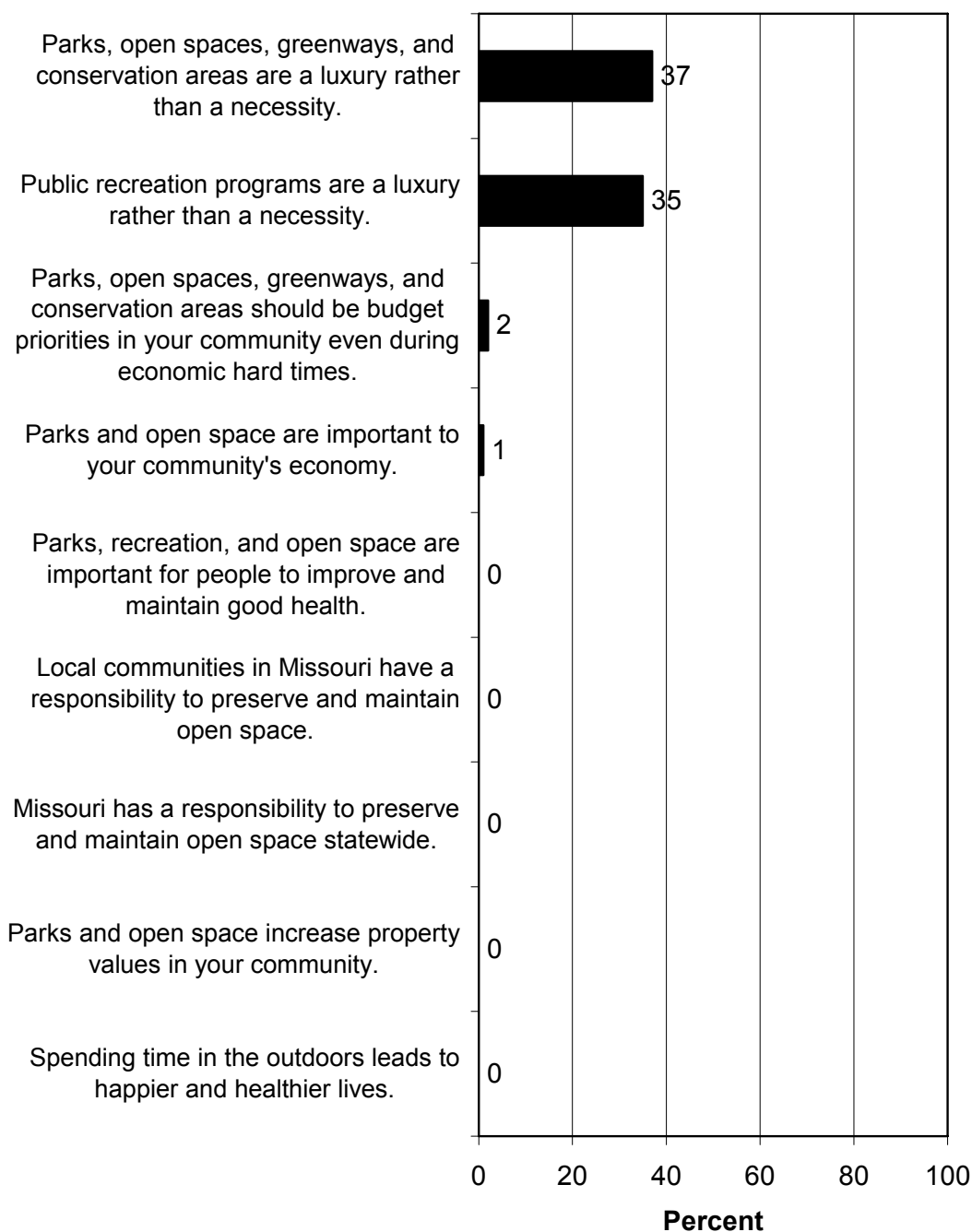
Percent who strongly agree or agree with the following statements. (Professionals)



Percent who disagree or strongly disagree with the following statements. (Professionals)



Percent who strongly disagree with the following statements. (Professionals)



RATINGS OF PARKS AND RECREATION SERVICES

- Residents rated the overall quality of parks and recreation services in Missouri as a whole and in their community. They then rated the availability of parks and recreation services in Missouri and in their community. On all four questions, ratings are more positive than negative, as *excellent* and *good* ratings exceed *fair* and *poor* ratings. In general, ratings are better for “in Missouri” than for “in your community.”
 - For overall quality of parks and recreation services in Missouri, 82% of residents give a rating of *excellent* or *good*, and 12% give a rating of *fair* or *poor*.
 - For overall quality of parks and recreation services in their community, 72% of residents give a rating of *excellent* or *good*, and 22% give a rating of *fair* or *poor*.
 - For availability of parks and recreation services in Missouri, 80% of residents give a rating of *excellent* or *good*, and 14% give a rating of *fair* or *poor*.
 - For availability of parks and recreation services in their community, 75% of residents give a rating of *excellent* or *good*, and 21% give a rating of *fair* or *poor*.
- As was done in the survey of residents, professionals were asked to rate the overall quality and availability of parks and recreation services in Missouri as a whole and in their community. On all four questions, professionals’ ratings are more positive than negative, as *excellent* and *good* ratings exceed *fair* and *poor* ratings. While the sum of *excellent* and *good* ratings are higher for the “in Missouri” questions than for the “in your community” questions, ratings of *excellent* are higher for the “in your community” questions.
 - For overall quality of parks and recreation services in Missouri, 92% of professionals give a rating of *excellent* or *good*, and 7% give a rating of *fair* or *poor*.
 - For overall quality of parks and recreation services in their community, 84% of professionals give a rating of *excellent* or *good*, and 15% give a rating of *fair* or *poor*.
 - For availability of parks and recreation services in Missouri, 86% of professionals give a rating of *excellent* or *good*, and 12% give a rating of *fair* or *poor*.
 - For availability of parks and recreation services in their community, 80% of professionals give a rating of *excellent* or *good*, and 20% give a rating of *fair* or *poor*.

- The nonparametric analysis of the residents' survey examined the ratings questions. Because the analysis found similar results in examining ratings at the state level and at the community level, the discussion here is limited to the residents' ratings of overall quality and availability of parks and recreation services *in Missouri*.
- The correlations to giving a rating of excellent or good to the overall quality of parks and recreation services in Missouri (among residents) are as follows:
 - Saying that conservation of natural resources is very important as a governmental expense ($p \leq 0.05$); note that this is the only correlation in the "government expense" series of questions.
 - Saying that public safety, such as police and fire departments, is very important to him/her personally for his/her quality of life ($p \leq 0.01$); note that this is the only correlation in the "personally for his/her quality of life" series of questions.
 - Saying that recreational activities/things he/she does in non-work time are very important to his/her quality of life ($p \leq 0.01$).
 - Rating the overall quality of parks and recreation services in his/her community as excellent or good ($p \leq 0.001$); rating the availability of parks and recreation services in Missouri ($p \leq 0.001$) and in his/her community ($p \leq 0.001$) as excellent or good; rating the overall safety of the parks in his/her community as excellent or good ($p \leq 0.001$).
 - Rating the quality of services provided by the Missouri Division of State Parks ($p \leq 0.001$), his/her city park and recreation agency ($p \leq 0.001$), the National Park Service ($p \leq 0.001$), the Missouri Department of Conservation ($p \leq 0.001$), his/her county park and recreation agency ($p \leq 0.001$), the U.S. Fish and Wildlife Service ($p \leq 0.001$), the U.S. Forest Service ($p \leq 0.001$), and/or the U.S. Army Corps of Engineers ($p \leq 0.001$) as excellent or good.
 - Enjoying mostly outdoor recreation ($p \leq 0.05$); having visited a state park ($p \leq 0.001$), a local park ($p \leq 0.001$), a national park or monument ($p \leq 0.001$), and/or a local public recreation facility ($p \leq 0.05$) in Missouri frequently or sometimes in the past 2 years.
 - Being white ($p \leq 0.001$), having a household income of \$100,000 or more ($p \leq 0.05$), having an education level of bachelor's degree or higher ($p \leq 0.05$).

- The correlations to *not* giving a rating of excellent or good to the overall quality of parks and recreation services in Missouri (among residents) are as follows:
 - *Not* indicating that conservation of natural resources is very important as a government expense ($p \leq 0.05$); note that this is the only correlation in the “government expense” series of questions.
 - *Not* indicating that public safety, such as police and fire departments, is very important to him/her personally for his/her quality of life ($p \leq 0.01$); note that this is the only correlation in the “personally for his/her quality of life” series of questions.
 - *Not* indicating that recreational activities/things he/she does in non-work time are very important to his/her quality of life ($p \leq 0.01$).
 - *Not* rating the overall quality of parks and recreation services in his/her community as excellent or good ($p \leq 0.001$); *not* rating the availability of parks and recreation services in Missouri ($p \leq 0.001$) and in his/her community ($p \leq 0.001$) as excellent or good; *not* rating the overall safety of the parks in his/her community as excellent or good ($p \leq 0.001$).
 - *Not* rating the quality of services provided by the Missouri Division of State Parks ($p \leq 0.001$), his/her city park and recreation agency ($p \leq 0.001$), the National Park Service ($p \leq 0.001$), the Missouri Department of Conservation ($p \leq 0.001$), his/her county park and recreation agency ($p \leq 0.001$), the U.S. Fish and Wildlife Service ($p \leq 0.001$), the U.S. Forest Service ($p \leq 0.001$), and/or the U.S. Army Corps of Engineers ($p \leq 0.001$) as excellent or good.
 - Enjoying mostly indoor recreation ($p \leq 0.05$); *not* having visited a state park ($p \leq 0.001$), a local park ($p \leq 0.001$), a national park or monument ($p \leq 0.001$), and/or a local public recreation facility in Missouri ($p \leq 0.05$) frequently or sometimes in the past 2 years.
 - Being non-white ($p \leq 0.001$), having an education level of no higher than high school ($p \leq 0.01$).
- The correlations to giving a rating of excellent or good to the availability of parks and recreation services in Missouri (among residents) are as follows:
 - (There were no correlations to opinions on government efforts.)

- (There were no correlations to importance of recreational activities/things he/she does in non-work time to his/her quality of life.)
- Rating the overall quality of parks and recreation services in Missouri ($p \leq 0.001$) and in his/her community ($p \leq 0.001$) as excellent or good; rating the availability of parks and recreation services in his/her community as excellent or good ($p \leq 0.001$); rating the overall safety of the parks in his/her community as excellent or good ($p \leq 0.001$).
- Rating the quality of services provided by the Missouri Division of State Parks ($p \leq 0.001$), the National Park Service ($p \leq 0.001$), the Missouri Department of Conservation ($p \leq 0.001$), the U.S. Fish and Wildlife Service ($p \leq 0.001$), his/her city park and recreation agency ($p \leq 0.001$), his/her county park and recreation agency ($p \leq 0.001$), the U.S. Forest Service ($p \leq 0.001$), and/or the U.S. Army Corps of Engineers ($p \leq 0.001$) as excellent or good.
- Enjoying mostly outdoor recreation ($p \leq 0.01$); having visited a state park ($p \leq 0.001$), a local park ($p \leq 0.001$), a national park or monument ($p \leq 0.05$), and/or a local public recreation facility ($p \leq 0.05$) in Missouri frequently or sometimes in the past 2 years.
- Being white ($p \leq 0.001$), having a household income of \$60,000 or more ($p \leq 0.05$), having an education level of bachelor's degree or higher ($p \leq 0.05$).
- The correlations to *not* giving a rating of excellent or good to the availability of parks and recreation services in Missouri (among residents) are as follows:
 - (There were no correlations to opinions on government efforts.)
 - (There were no correlations to importance of recreational activities/things he/she does in non-work time to his/her quality of life.)
 - *Not* rating the overall quality of parks and recreation services in Missouri ($p \leq 0.001$) and in his/her community ($p \leq 0.001$) as excellent or good; *not* rating the availability of parks and recreation services in his/her community as excellent or good ($p \leq 0.001$); *not* rating the overall safety of the parks in his/her community as excellent or good ($p \leq 0.001$).
 - *Not* rating the quality of services provided by the Missouri Division of State Parks ($p \leq 0.001$), the National Park Service ($p \leq 0.001$), the Missouri Department of Conservation ($p \leq 0.001$), the U.S. Fish and Wildlife Service ($p \leq 0.001$), his/her city park and recreation agency ($p \leq 0.001$), his/her county park and recreation agency

- ($p \leq 0.001$), the U.S. Forest Service ($p \leq 0.001$), and/or the U.S. Army Corps of Engineers ($p \leq 0.001$) as excellent or good.
- *Not* having visited a state park ($p \leq 0.001$), a local park ($p \leq 0.001$), a national park or monument ($p \leq 0.05$), and/or a local public recreation facility ($p \leq 0.05$) in Missouri frequently or sometimes in the past 2 years.
 - Being non-white ($p \leq 0.001$), having an education level of no higher than high school ($p \leq 0.05$).
- Residents also rated the overall safety of the parks in their community, with results similar to those above: 72% rate overall safety *excellent* or *good*, while 19% rate it *fair* or *poor* (with only 5% rating it *poor*).
- Professionals also give positive ratings to safety of parks in their community: 84% rate it excellent or good, while 12% rate it fair or poor.
 - The correlations to giving a rating of excellent or good to the overall safety of parks and recreation services in his/her community (among residents) are as follows:
 - *Not* saying that communities connected by sidewalks and trails is very important as a governmental expense ($p \leq 0.01$); however, saying that schools/education is very important as a governmental expense ($p \leq 0.05$).
 - *Not* saying that city and town beautification is very important to him/her personally for his/her quality of life ($p \leq 0.05$); note that this is the only correlation in the “personally for his/her quality of life” series of questions.
 - Saying it is very important that the government spend tax dollars on the provision of parks and recreation services for children ($p \leq 0.05$).
 - Rating the overall quality of parks and recreation services in his/her community ($p \leq 0.001$) and in Missouri ($p \leq 0.001$) as excellent or good; rating the availability of parks and recreation services in his/her community ($p \leq 0.001$) and in Missouri ($p \leq 0.001$) as excellent or good.
 - Rating the quality of services provided by his/her city park and recreation agency ($p \leq 0.001$), his/her county park and recreation agency ($p \leq 0.001$), the Missouri Division of State Parks ($p \leq 0.001$), the National Park Service ($p \leq 0.001$), the U.S. Fish and Wildlife Service ($p \leq 0.001$), the Missouri Department of Conservation

- ($p \leq 0.001$), the U.S. Forest Service ($p \leq 0.001$), and/or the U.S. Army Corps of Engineers ($p \leq 0.001$) as excellent or good.
- Having visited a local park ($p \leq 0.001$), a state park ($p \leq 0.001$), a national park or monument ($p \leq 0.001$), and/or a local public recreation facility ($p \leq 0.01$) in Missouri frequently or sometimes in the past 2 years.
 - Having a household income of \$60,000 or more ($p \leq 0.01$), being white ($p \leq 0.01$), having an education level of bachelor's degree or higher ($p \leq 0.05$), having children living in household ($p \leq 0.05$).
 - The correlations to *not* giving a rating of excellent or good to the overall safety of parks and recreation services in his/her community (among residents) are as follows:
 - Saying that communities connected by sidewalks and trails is very important as a governmental expense ($p \leq 0.01$); however, *not* saying that schools/education is very important as a governmental expense ($p \leq 0.05$).
 - Saying that city and town beautification is very important to him/her personally for his/her quality of life ($p \leq 0.05$); note that this is the only correlation in the “personally for his/her quality of life” series of questions.
 - *Not* saying it is very important that the government spend tax dollars on the provision of parks and recreation services for children ($p \leq 0.05$).
 - *Not* rating the overall quality of parks and recreation services in his/her community ($p \leq 0.001$) and in Missouri ($p \leq 0.001$) as excellent or good; rating the availability of parks and recreation services in his/her community ($p \leq 0.001$) and in Missouri ($p \leq 0.001$) as excellent or good.
 - *Not* rating the quality of services provided by his/her city park and recreation agency ($p \leq 0.001$), his/her county park and recreation agency ($p \leq 0.001$), the Missouri Division of State Parks ($p \leq 0.001$), the National Park Service ($p \leq 0.001$), the U.S. Fish and Wildlife Service ($p \leq 0.001$), the Missouri Department of Conservation ($p \leq 0.001$), the U.S. Forest Service ($p \leq 0.001$), and/or the U.S. Army Corps of Engineers ($p \leq 0.001$) as excellent or good.
 - *Not* having visited a local park ($p \leq 0.001$), a state park ($p \leq 0.001$), a national park or monument ($p \leq 0.001$), and/or a local public recreation facility ($p \leq 0.01$) in Missouri frequently or sometimes in the past 2 years.

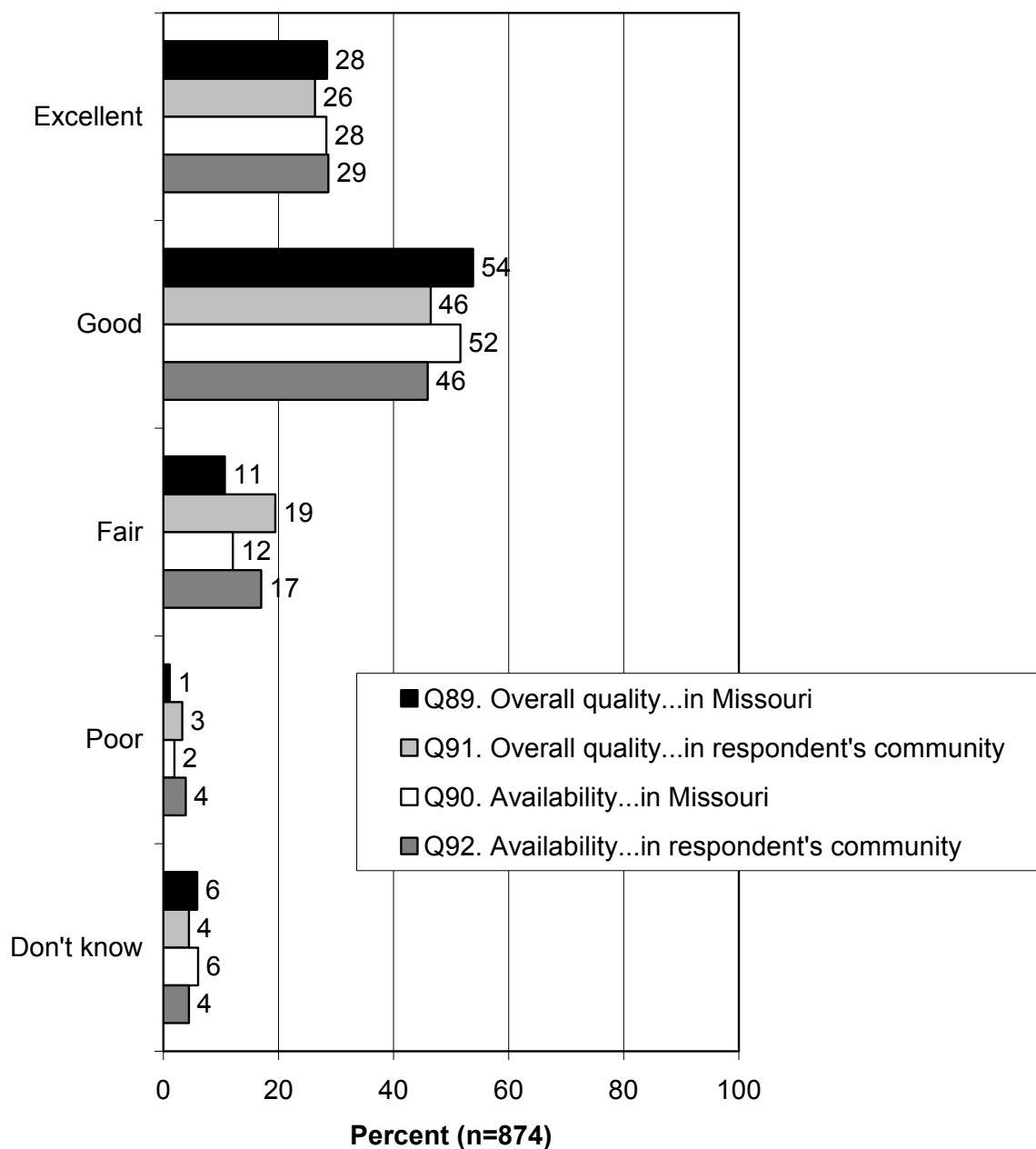
- Having an education level of no higher than high school ($p \leq 0.01$), being non-white ($p \leq 0.01$), *not* having children living in household ($p \leq 0.05$).
- The survey examined residents' opinions on the quality of services of various providers of parks, recreation, and conservation services in Missouri. The survey randomized the beginning point in the listing of providers to minimize "order" bias. These are shown in the text box below. For all agencies, a majority give a rating of *excellent* or *good* (from 55% to 73%), and quite low percentages give a rating of *poor* (no more than 3% for any agency).
 - In looking at the *excellent* and *good* responses combined, the top-rated agencies are the Missouri Department of Conservation (73% rate its services as *excellent* or *good*), the Missouri Division of State Parks (69%), the National Park Service (67%), the respondent's city park and recreation agency (66%), and the U.S. Fish and Wildlife Service (64%).
 - Note that the percentage giving a "don't know" response is relatively high for all of the agencies (ranging from 15% to 35%).
 - Three agencies have more than 10% of respondents giving a *fair* or *poor* rating: the respondent's county park and recreation agency (18%), the respondent's city park and recreation agency (18%), and the U.S. Army Corps of Engineers (13%).

Agencies That Provide Parks and Recreation Services About Which the Survey Asked

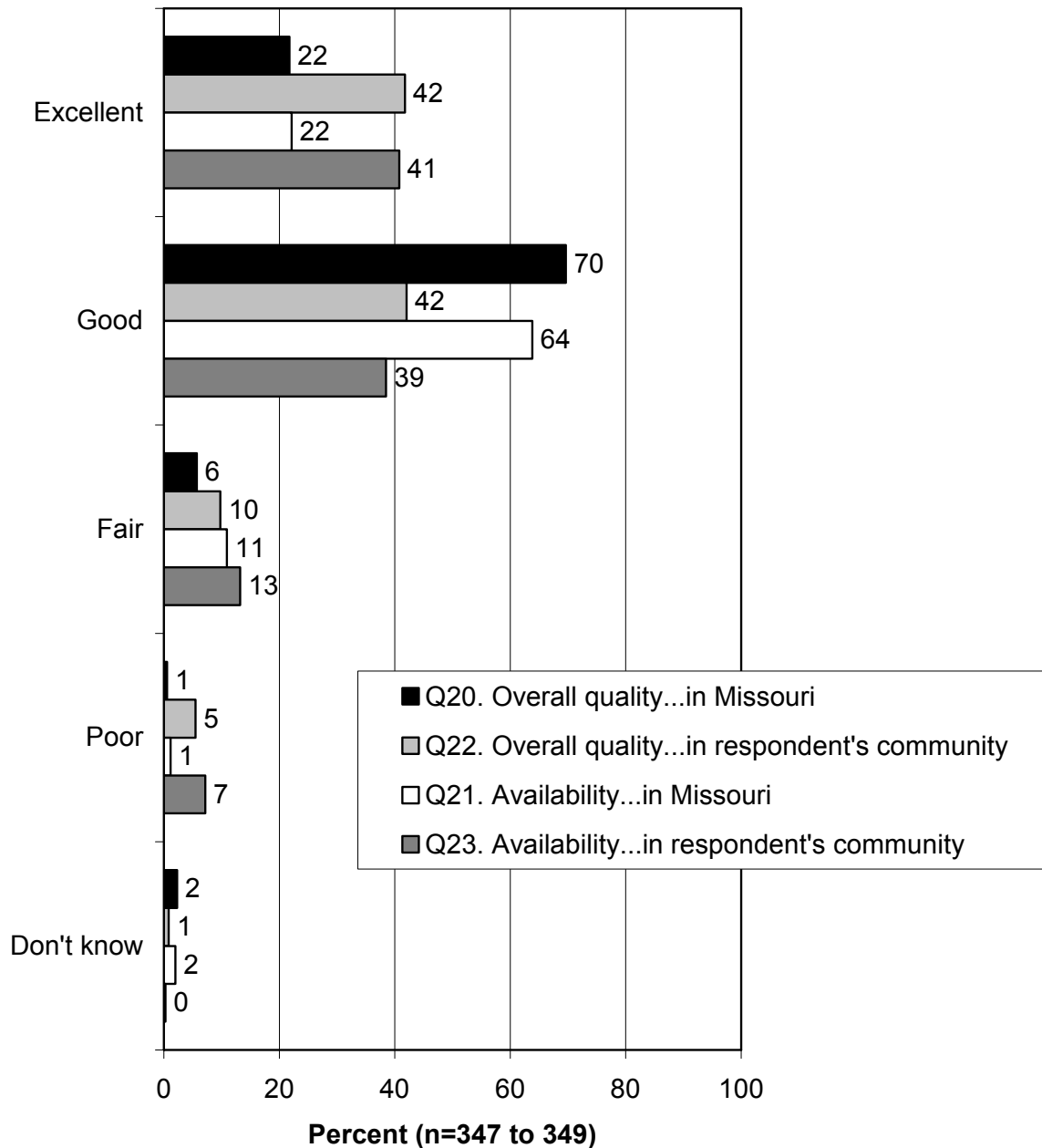
96. The Missouri Division of State Parks
97. The National Park Service
98. The U.S. Forest Service
99. The U.S. Army Corps of Engineers
100. The Missouri Department of Conservation
101. The respondent's city park and recreation agency
102. The respondent's county park and recreation agency
103. The U.S. Fish and Wildlife Service

- Professionals rated the quality of services of those same providers of parks, recreation, and conservation services in Missouri.
 - In looking at the *excellent* and *good* responses combined, the top-rated agencies are the respondent's city park and recreation agency (83% rate its services as *excellent* or *good*), the Missouri Division of State Parks (81%), the Missouri Department of Conservation (81%), the National Park Service (68%), and the respondent's county park and recreation agency (57%)—each with a majority of respondents giving it positive ratings.

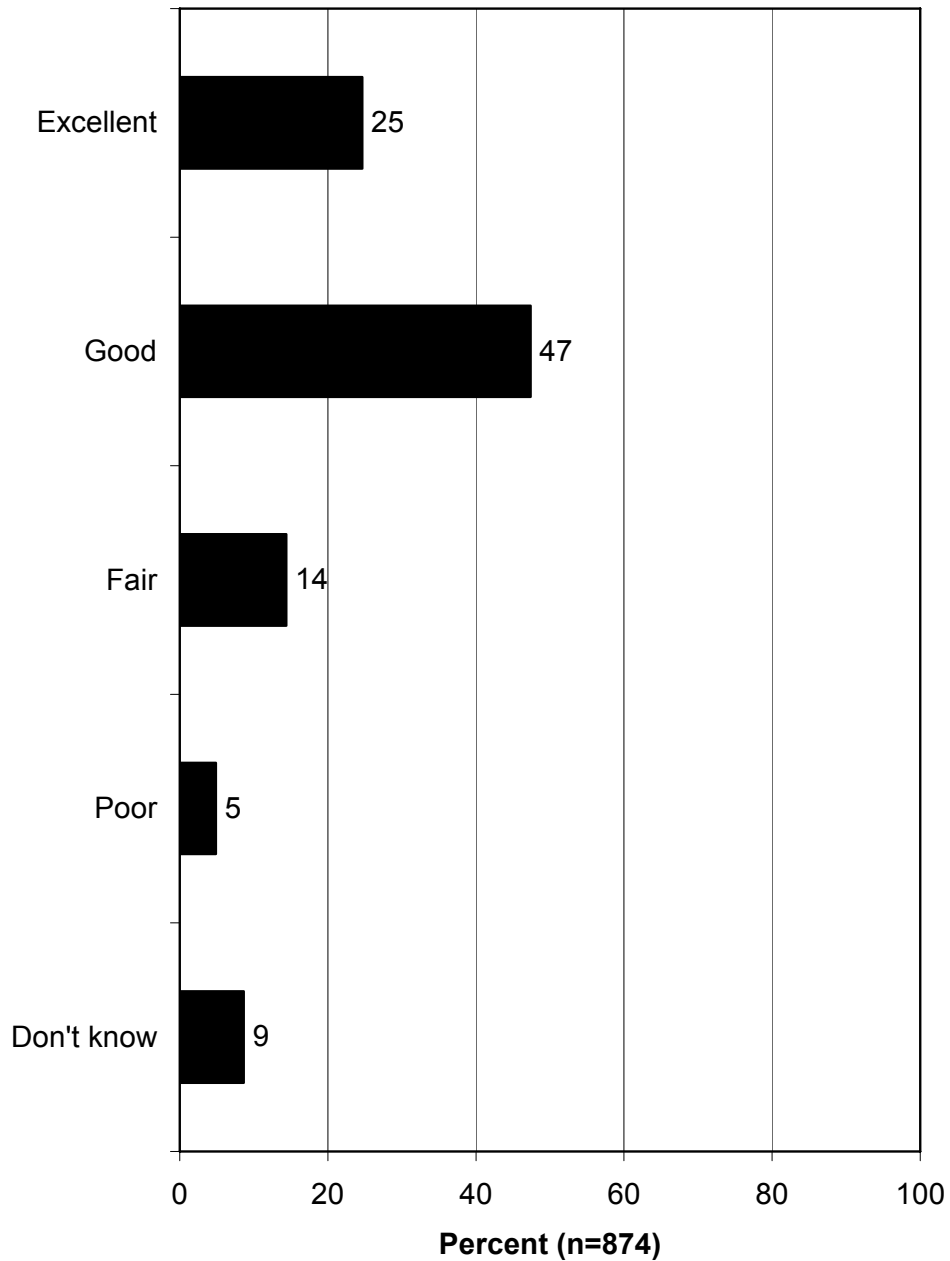
**Q89/90/91/92. How would you rate the (overall quality / the availability) of parks and recreation services (in Missouri / in your community)?
(Missouri residents)**



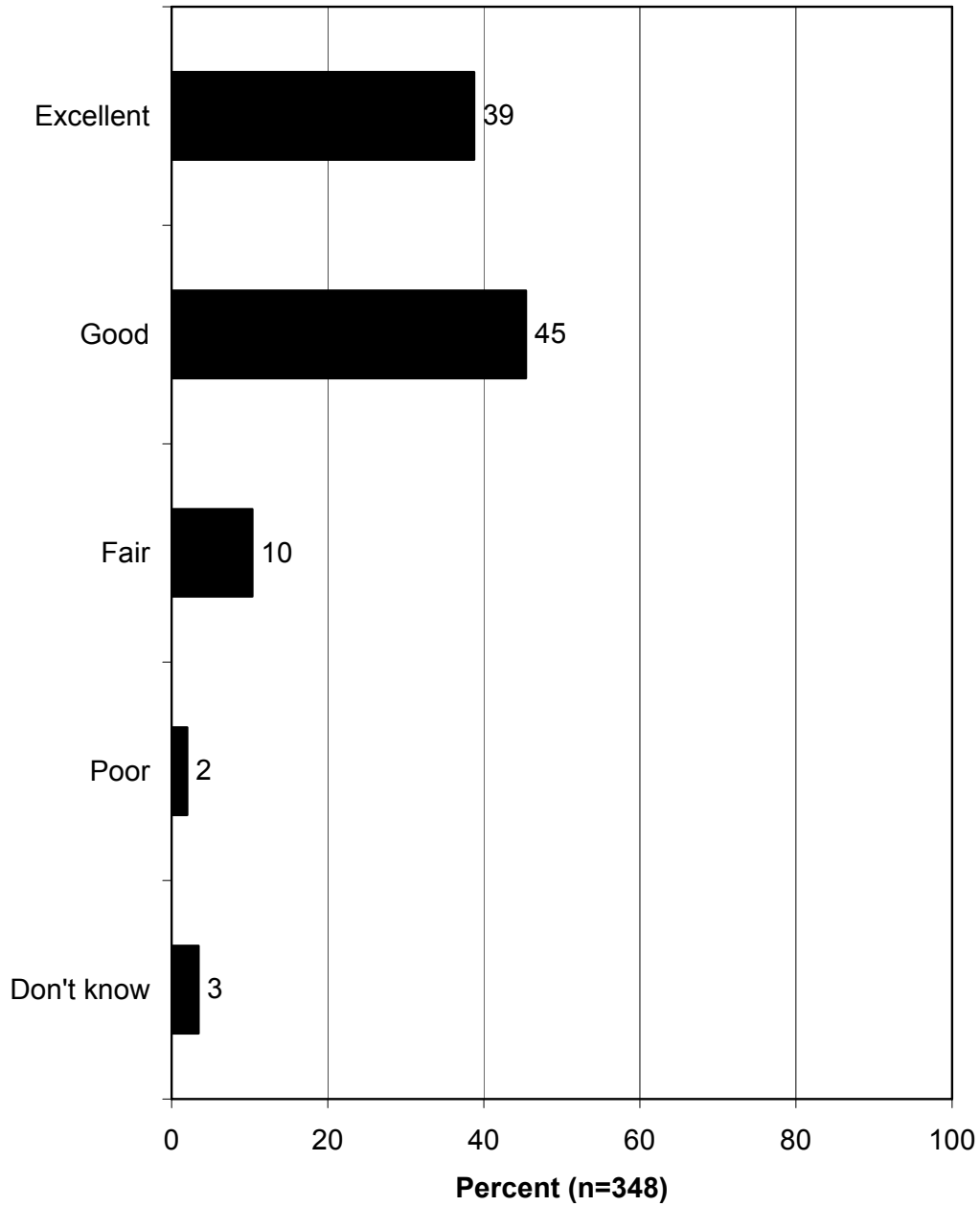
**Q20/21/22/23. How would you rate the (overall quality / the availability) of parks and recreation services (in Missouri / in your community)?
(Professionals)**



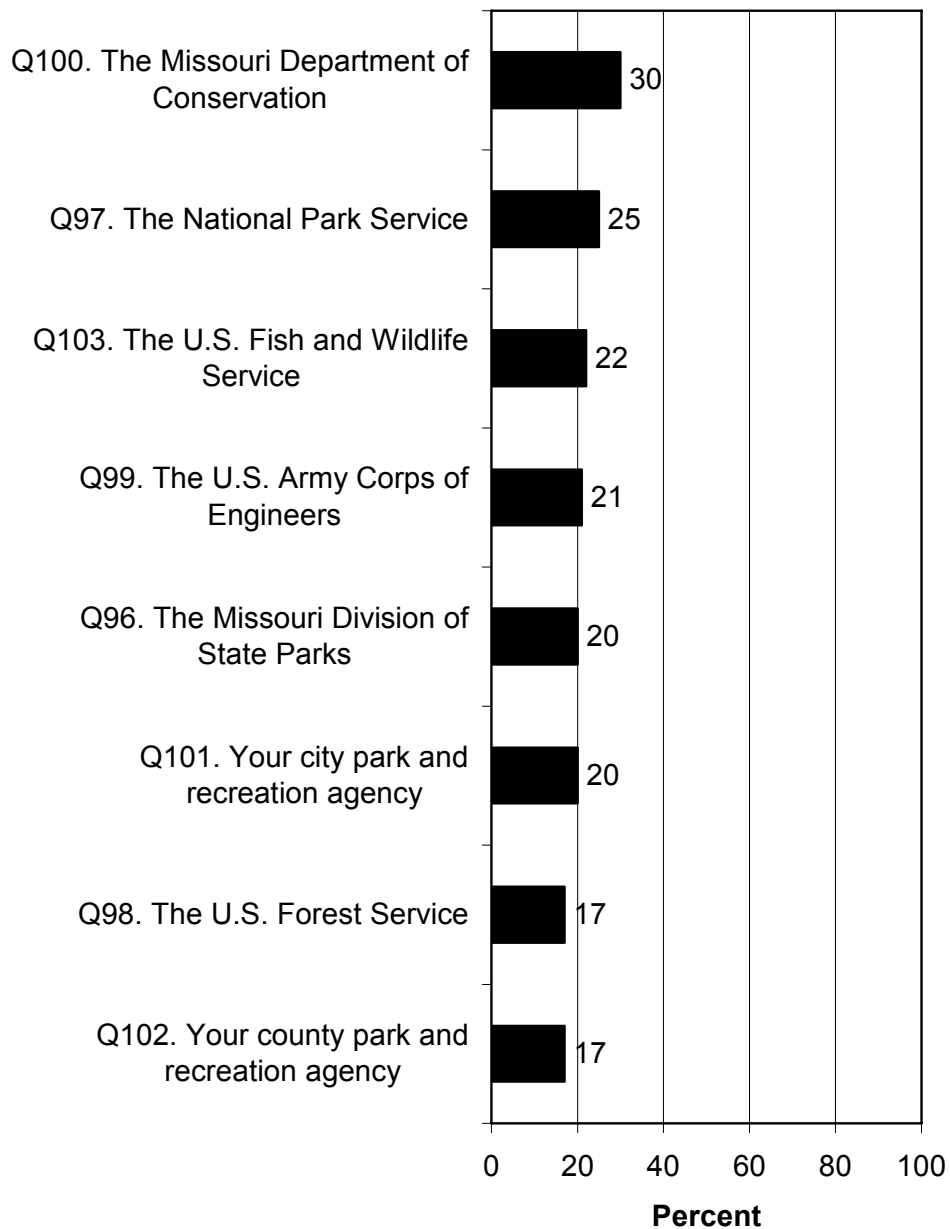
**Q93. How would you rate the overall safety of the parks in your community?
(Missouri residents)**



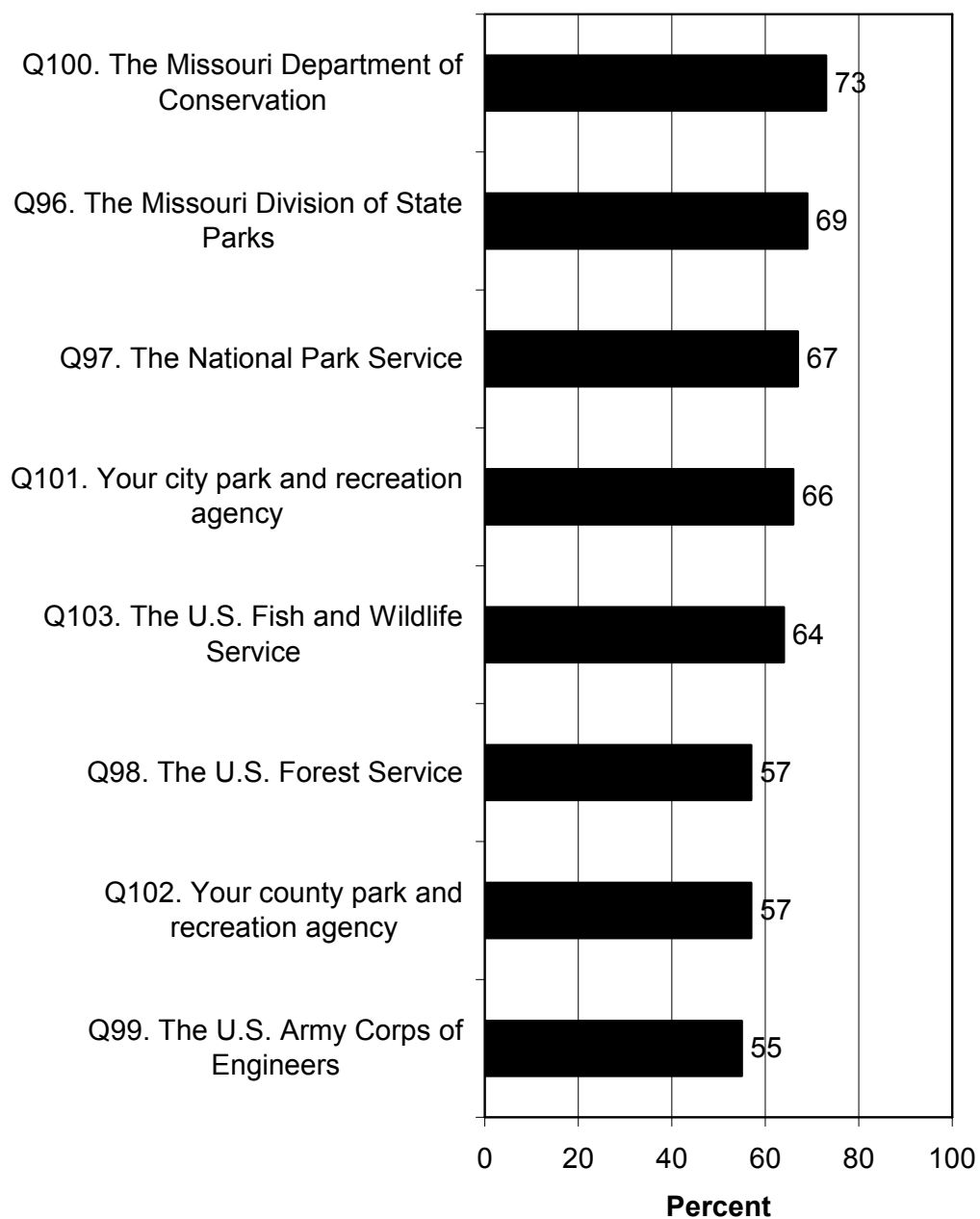
Q24. How would you rate the overall safety of the parks in your community? (Professionals)



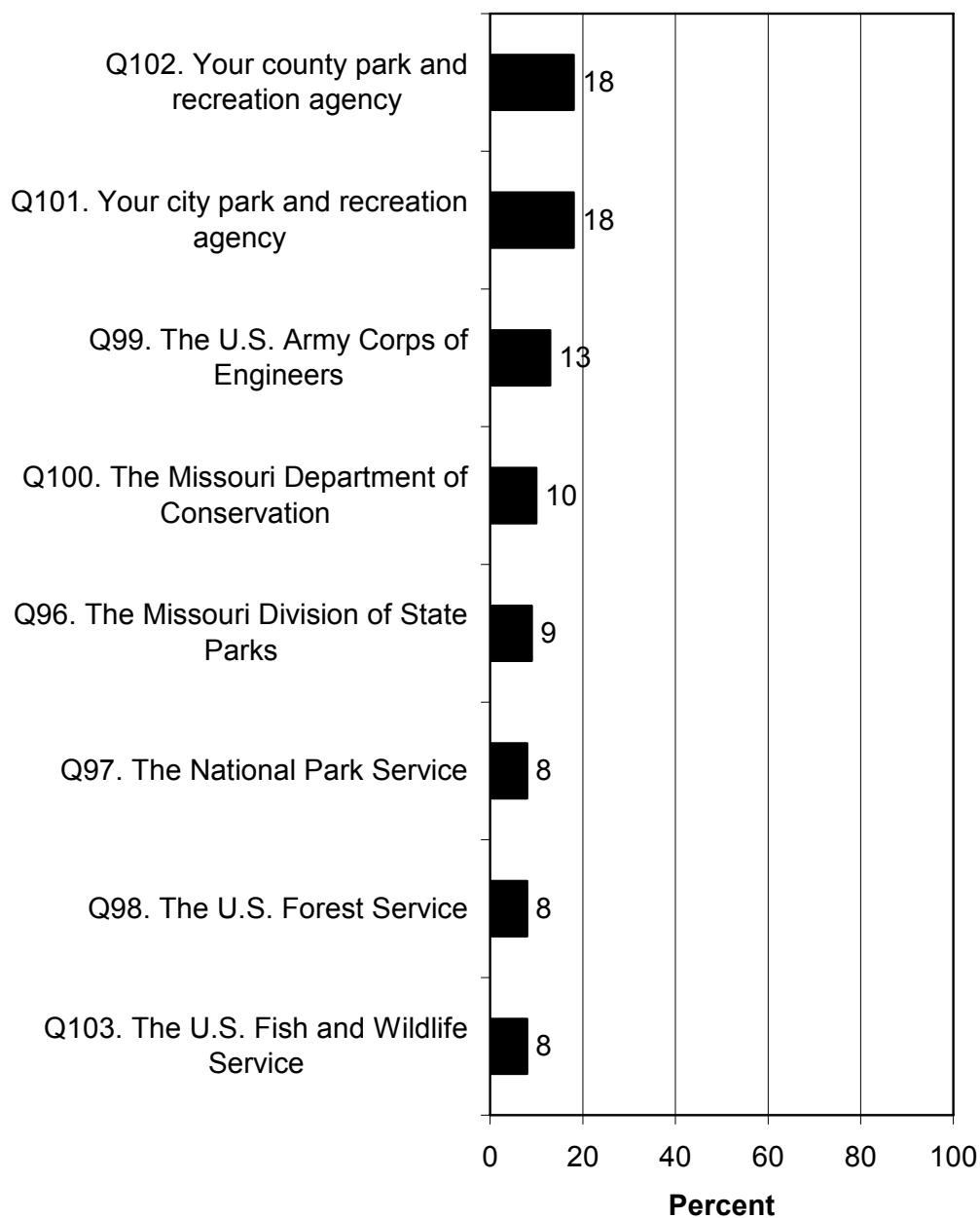
**Percent who rated the quality of services provided
by each of the following as excellent.
(Missouri residents)**



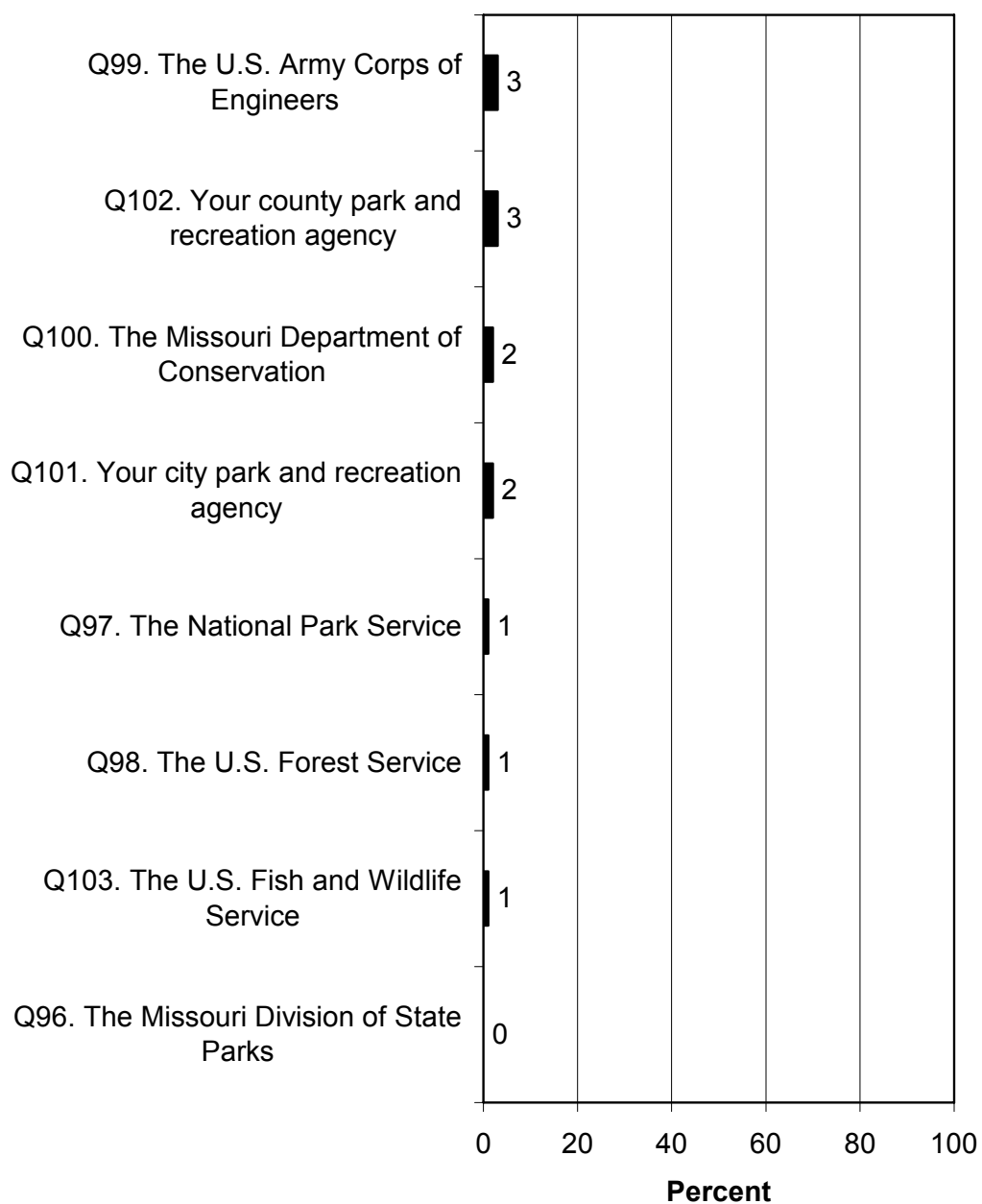
**Percent who rated the quality of services provided
by each of the following as excellent or good.
(Missouri residents)**



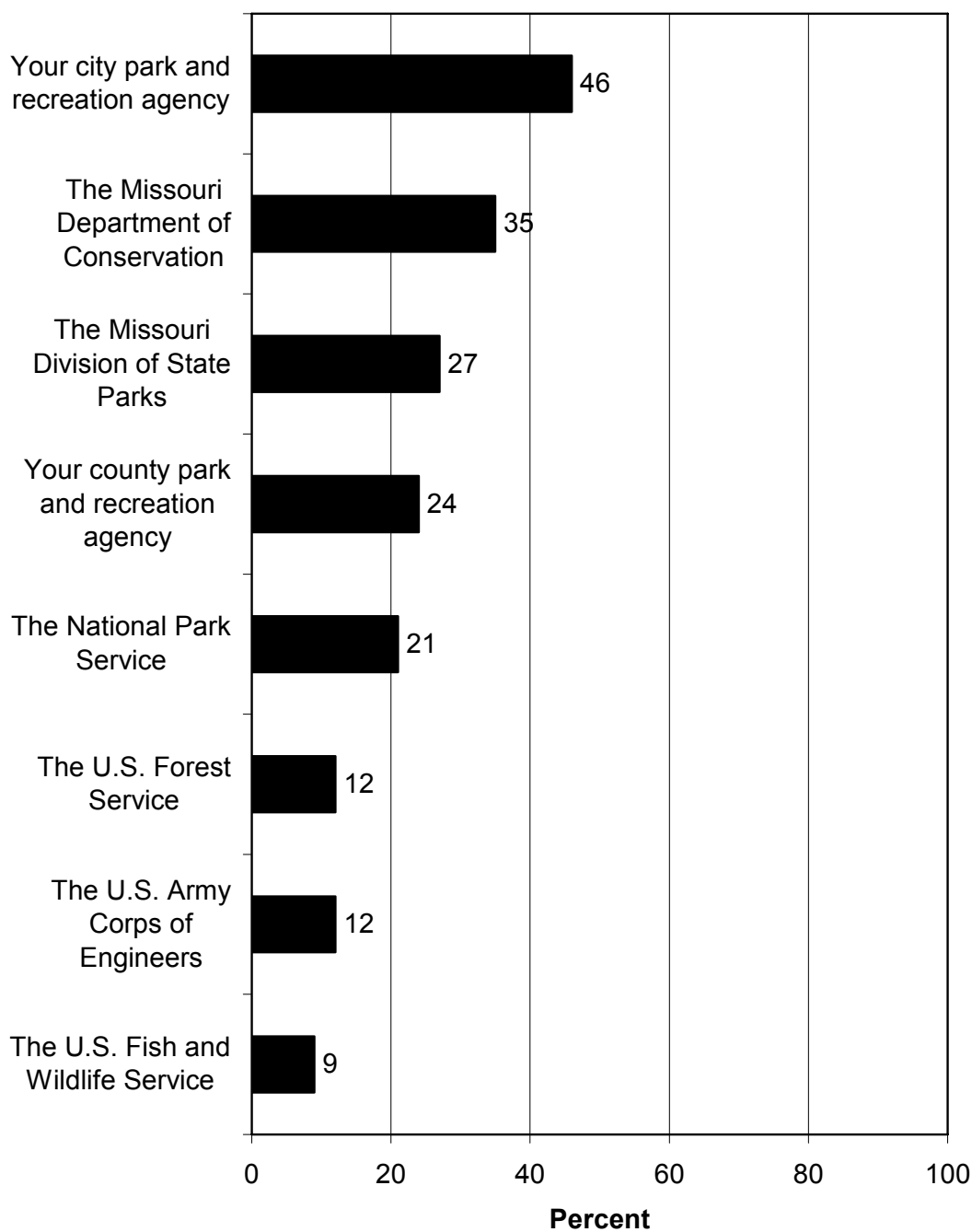
**Percent who rated the quality of services provided
by each of the following as fair or poor.
(Missouri residents)**



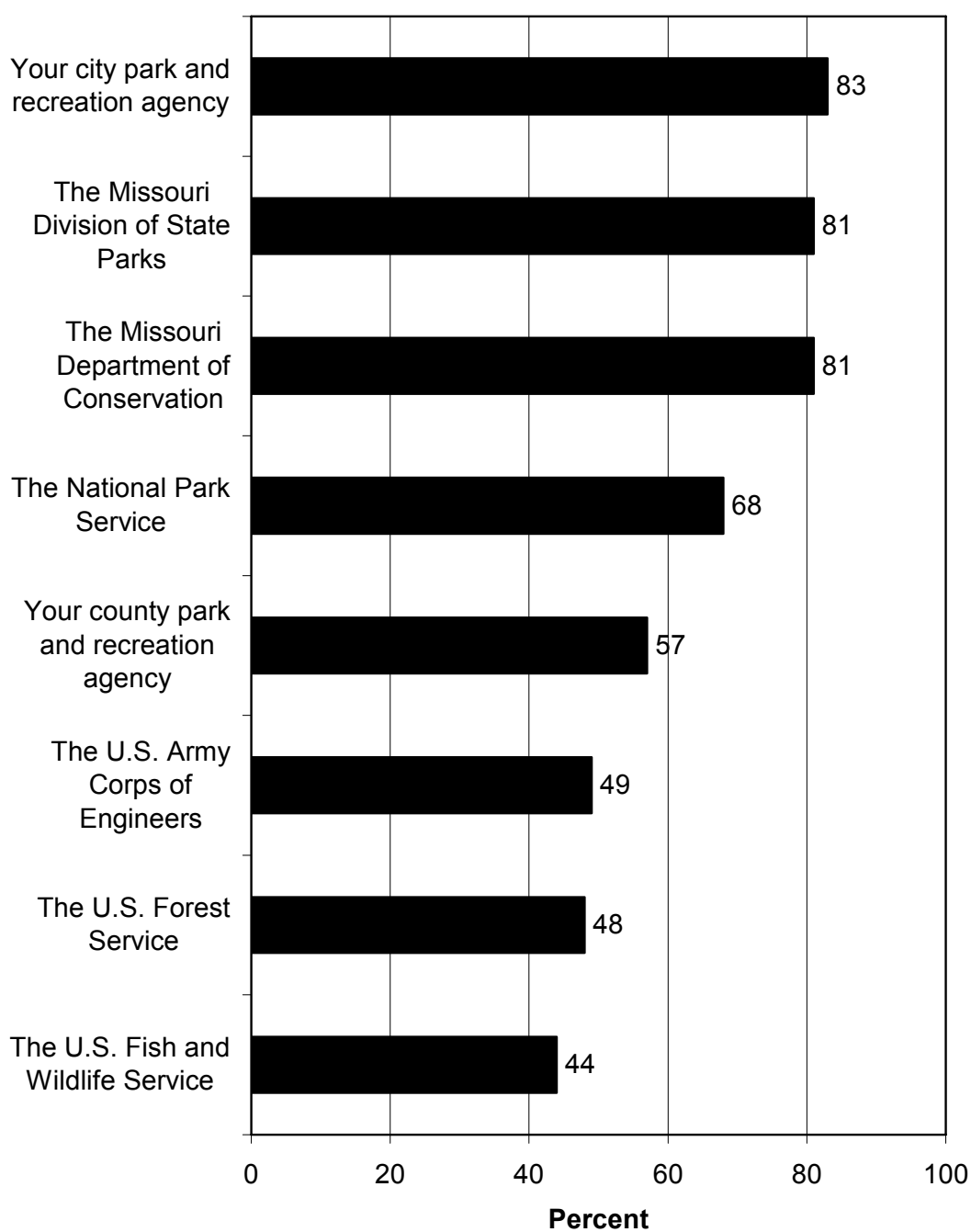
**Percent who rated the quality of services provided
by each of the following as poor.
(Missouri residents)**



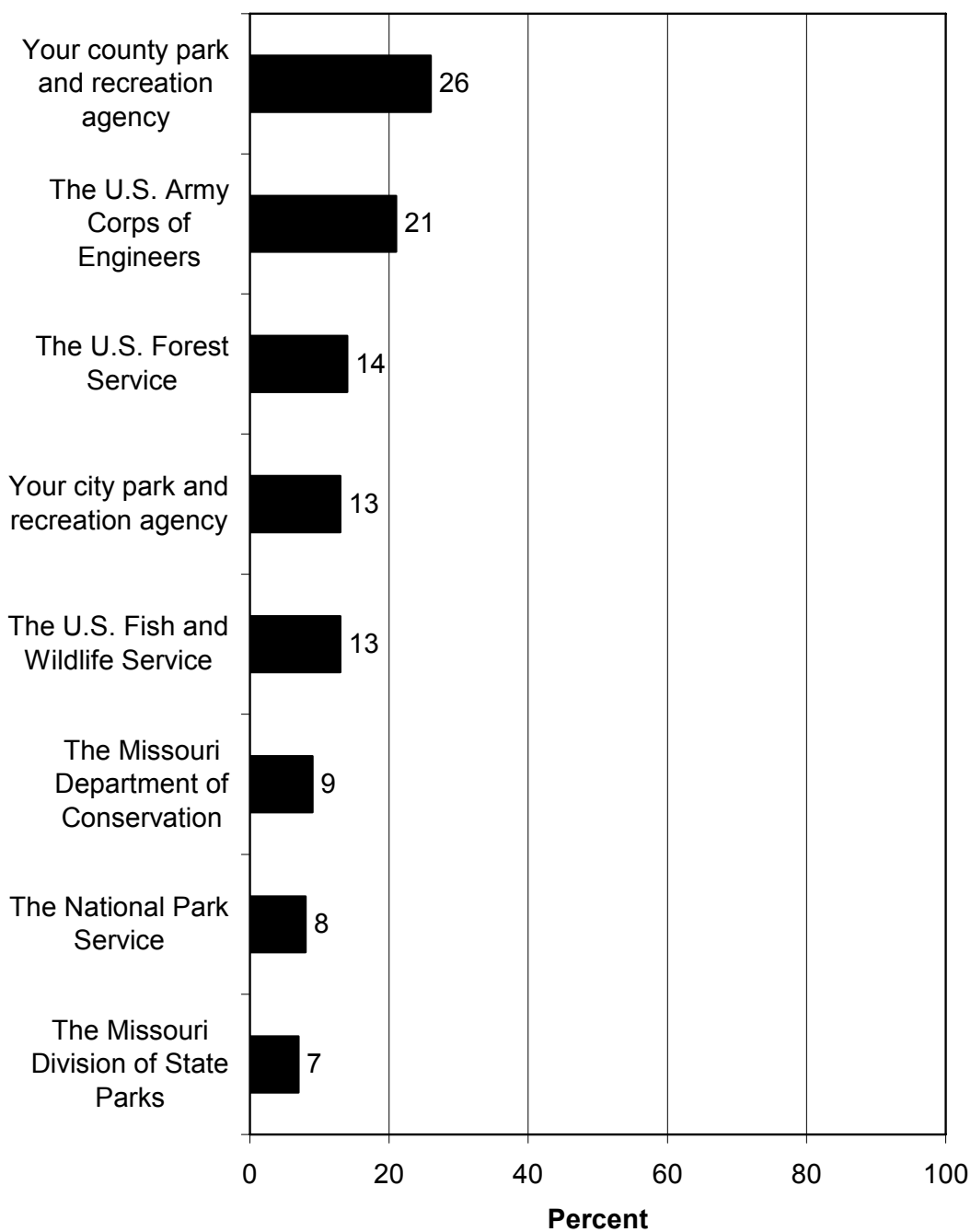
**Percent who rated the quality of services provided
by each of the following as excellent.
(Professionals)**



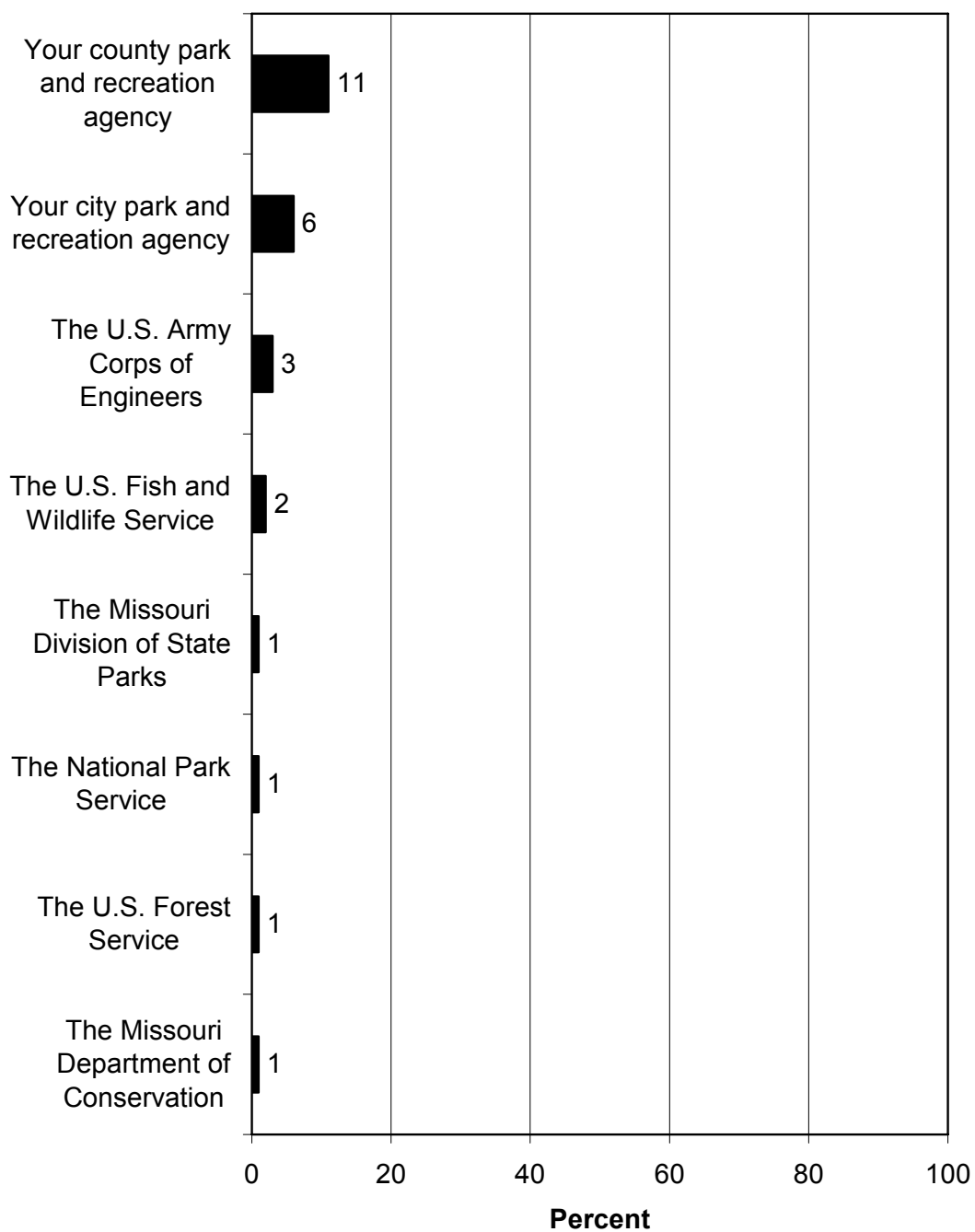
**Percent who rated the quality of services provided
by each of the following as excellent or good.
(Professionals)**



**Percent who rated the quality of services provided
by each of the following as fair or poor.
(Professionals)**



**Percent who rated the quality of services provided
by each of the following as poor. (Professionals)**



DEMOGRAPHIC DATA

- For all the demographic questions, the nonparametric analysis of the data from the survey of residents examined how the demographic characteristics correlated to ratings of overall quality and availability of parks and recreation services in the respondent's community and in Missouri, as well as how they correlated to the ratings of overall safety of parks in the respondent's community.

- The majority of residents (86%) identify themselves as white or Caucasian. Meanwhile, 7% identify themselves as black or African-American, and 3% identify themselves as native American.
 - The nonparametric analysis of the residents' survey found that being white is correlated to giving excellent or good ratings to:
 - The availability of parks and recreation services in Missouri. ($p \leq 0.001$)
 - The availability of parks and recreation services in his/her community. ($p \leq 0.001$)
 - The overall quality of parks and recreation services in Missouri. ($p \leq 0.001$)
 - The overall quality of parks and recreation services in his/her community. ($p \leq 0.01$)
 - The overall safety of parks in his/her community. ($p \leq 0.01$)
 - The nonparametric analysis of the residents' survey found that being non-white is correlated to *not* giving excellent or good ratings to:
 - The availability of parks and recreation services in Missouri. ($p \leq 0.001$)
 - The availability of parks and recreation services in his/her community. ($p \leq 0.001$)
 - The overall quality of parks and recreation services in Missouri. ($p \leq 0.001$)
 - The overall quality of parks and recreation services in his/her community. ($p \leq 0.01$)
 - The overall safety of parks in his/her community. ($p \leq 0.01$)

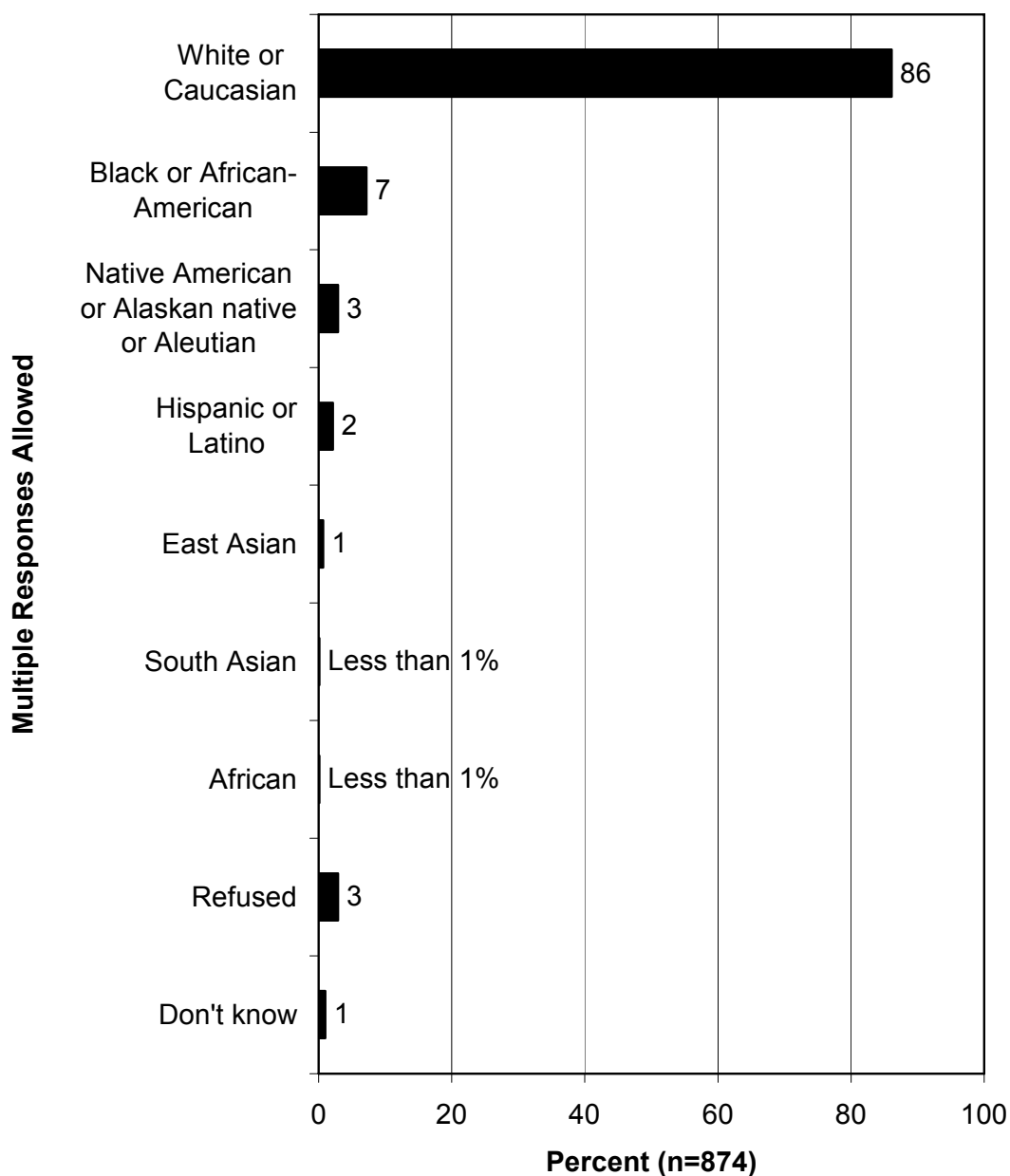
- Just more than a third of residents (37%) have at least one child 17 years old or younger living in their household.
 - Of those residents with at least one child living at home, 62% have more than one child (23% of all residents).
 - The nonparametric analysis of the residents' survey found that having children living in his/her household is correlated to giving excellent or good ratings to:
 - The overall safety of parks in his/her community. ($p \leq 0.05$)
 - The overall quality of parks and recreation services in his/her community. ($p \leq 0.05$)
 - The nonparametric analysis of the residents' survey found that *not* having children living in his/her household is correlated to *not* giving excellent or good ratings to:
 - The overall safety of parks in his/her community. ($p \leq 0.05$)
 - The overall quality of parks and recreation services in his/her community. ($p \leq 0.05$)
- Regarding their residence, 25% of Missouri residents describe their place of residence as rural, 31% describe it as a small city or town, and 43% describe it as suburban or a large city/urban area.
 - A graph of the results of this question among professionals is shown.
 - The nonparametric analysis of the residents' survey found that living in a rural area has no correlations to giving or not giving excellent or good ratings to the overall quality and availability of parks and recreation services in the his/her community and in Missouri, as well as to the overall safety of parks in the his/her community.
 - The nonparametric analysis of the residents' survey found that living in a small city or town has no correlations to giving or not giving excellent or good ratings to the overall quality and availability of parks and recreation services in the his/her community and in Missouri, as well as to the overall safety of parks in the his/her community.
 - The nonparametric analysis of the residents' survey found that living in a suburban area or a large city/urban area has no correlations to giving or not giving excellent or good ratings to the overall quality and availability of parks and recreation services in the his/her community and in Missouri, as well as to the overall safety of parks in the his/her community.

- Educational attainment of residents is shown: 64% of Missouri residents have taken some college or trade school coursework, with or without a degree, and 32% have a Bachelor's degree, with or without a higher degree.
 - A graph of the results of this question among professionals is shown.
 - The nonparametric analysis of the residents' survey found that having an education level of no higher than high school is correlated to *not* giving excellent or good ratings to:
 - The overall quality of parks and recreation services in Missouri. ($p \leq 0.01$)
 - The overall safety of parks in his/her community. ($p \leq 0.01$)
 - The overall quality of parks and recreation services in his/her community. ($p \leq 0.01$)
 - The availability of parks and recreation services in Missouri. ($p \leq 0.05$)
 - The availability of parks and recreation services in his/her community. ($p \leq 0.05$)
 - The nonparametric analysis of the residents' survey found that having an education level of some college without a bachelor's degree has no correlations to giving or not giving excellent or good ratings to the overall quality and availability of parks and recreation services in the his/her community and in Missouri, as well as to the overall safety of parks in the his/her community.
 - The nonparametric analysis of the residents' survey found that having an education level of bachelor's degree or higher is correlated to giving excellent or good ratings to:
 - The availability of parks and recreation services in his/her community. ($p \leq 0.05$)
 - The availability of parks and recreation services in Missouri. ($p \leq 0.05$)
 - The overall safety of parks in his/her community. ($p \leq 0.05$)
 - The overall quality of parks and recreation services in Missouri. ($p \leq 0.05$)

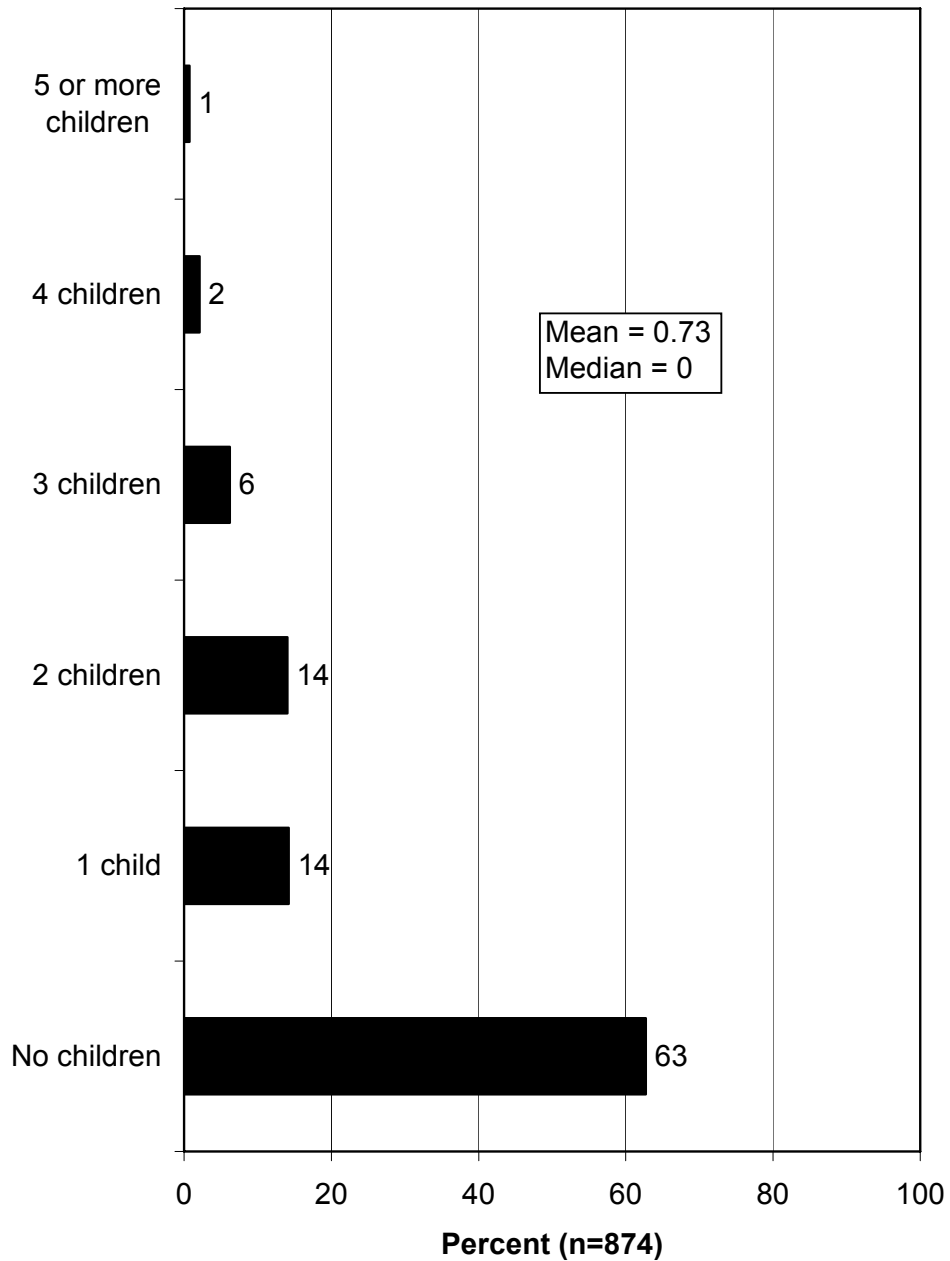
- Household incomes of residents are shown, in general following a bell-curve.
 - The nonparametric analysis of the residents' survey found that having a household income of less than \$60,000 has no correlations to giving or not giving excellent or good ratings to the overall quality and availability of parks and recreation services in the his/her community and in Missouri, as well as to the overall safety of parks in the his/her community.
 - The nonparametric analysis of the residents' survey found that having a household income of from \$60,000 to \$99,999 is correlated to giving excellent or good ratings to:
 - The overall safety of parks in his/her community. ($p \leq 0.001$)
 - The availability of parks and recreation services in Missouri. ($p \leq 0.01$)
 - The availability of parks and recreation services in his/her community. ($p \leq 0.01$)
 - The overall quality of parks and recreation services in his/her community. ($p \leq 0.05$)
 - The nonparametric analysis of the residents' survey found that having a household income of \$100,000 or more is correlated to giving excellent or good ratings to:
 - The overall safety of parks in his/her community. ($p \leq 0.01$)
 - The overall quality of parks and recreation services in his/her community. ($p \leq 0.01$)
 - The availability of parks and recreation services in Missouri. ($p \leq 0.05$)
 - The availability of parks and recreation services in his/her community. ($p \leq 0.05$)
 - The overall quality of parks and recreation services in Missouri. ($p \leq 0.05$)
- The data from the survey of residents were weighted by age and gender to match the Missouri population as a whole. The weighted proportions in the survey are shown in the pie graphs that are included in this section.
 - The nonparametric analysis of the residents' survey found that being less than 35 years old has no correlations to giving or not giving excellent or good ratings to the overall quality and availability of parks and recreation services in the his/her community and in Missouri, as well as to the overall safety of parks in the his/her community.
 - The nonparametric analysis of the residents' survey found that being from 35 to 54 years old has no correlations to giving or not giving excellent or good ratings to the overall quality and availability of parks and recreation services in the his/her community and in Missouri, as well as to the overall safety of parks in the his/her community.

- The nonparametric analysis of the residents' survey found that being 55 years old or older has no correlations to giving or not giving excellent or good ratings to the overall quality and availability of parks and recreation services in the his/her community and in Missouri, as well as to the overall safety of parks in the his/her community.
 - The nonparametric analysis of the residents' survey found that being male has no correlations to giving or not giving excellent or good ratings to the overall quality and availability of parks and recreation services in the his/her community and in Missouri, as well as to the overall safety of parks in the his/her community.
 - The nonparametric analysis of the residents' survey found that being female has no correlations to giving or not giving excellent or good ratings to the overall quality and availability of parks and recreation services in the his/her community and in Missouri, as well as to the overall safety of parks in the his/her community.
- A graph of the results of the gender question among professionals is shown.
- The final graph shows a categorization of professionals who were surveyed by type of professional. A majority of professionals (57%) in the survey are MPRA members. Additionally, 26% are city/town/village council members, 18% are city/town/village employees, and 12% are mayors.

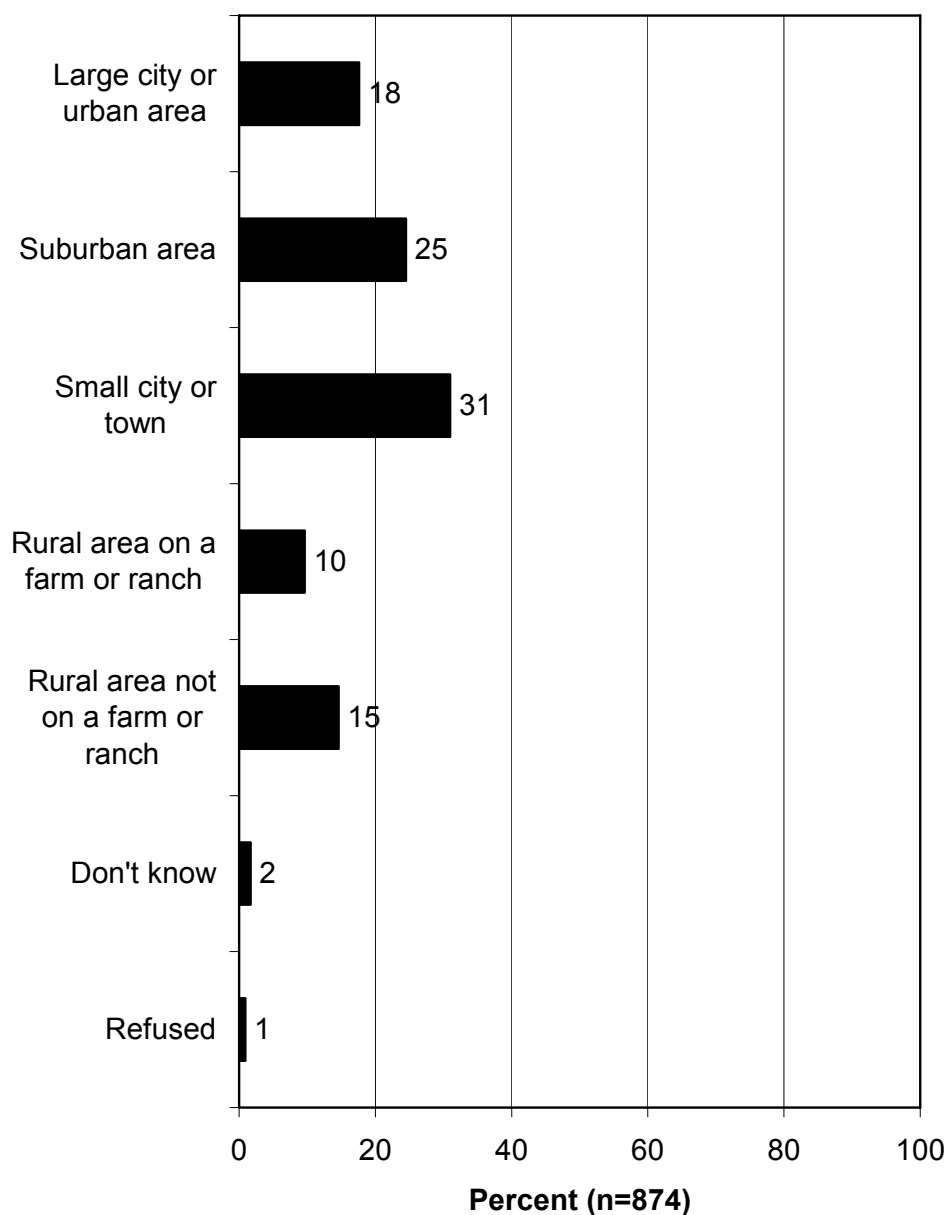
**Q123. What races or ethnic backgrounds do you consider yourself? Please mention all that apply.
(Missouri residents)**



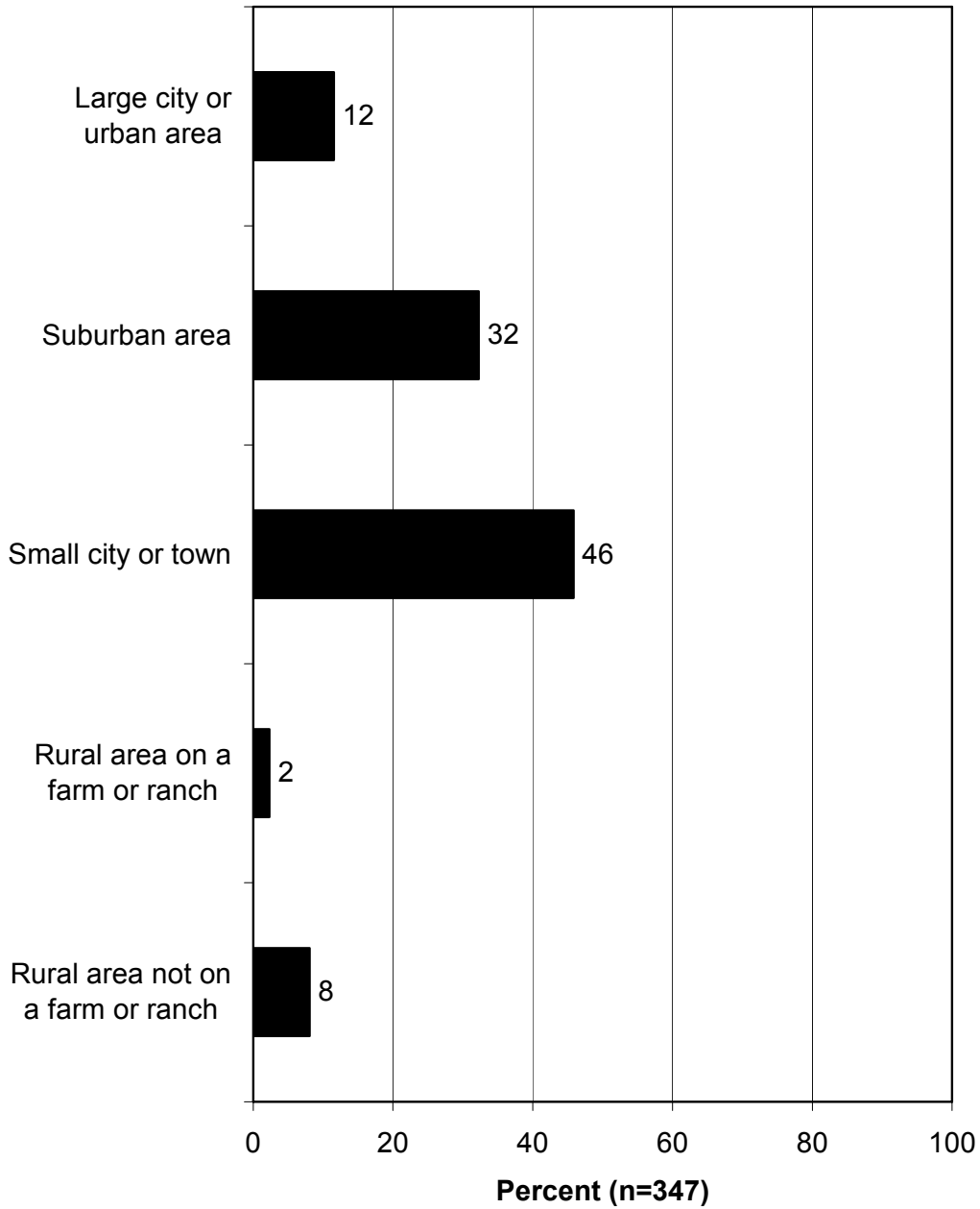
**Q61. How many children, age 17 or younger, do you have living in your household?
(Missouri residents)**



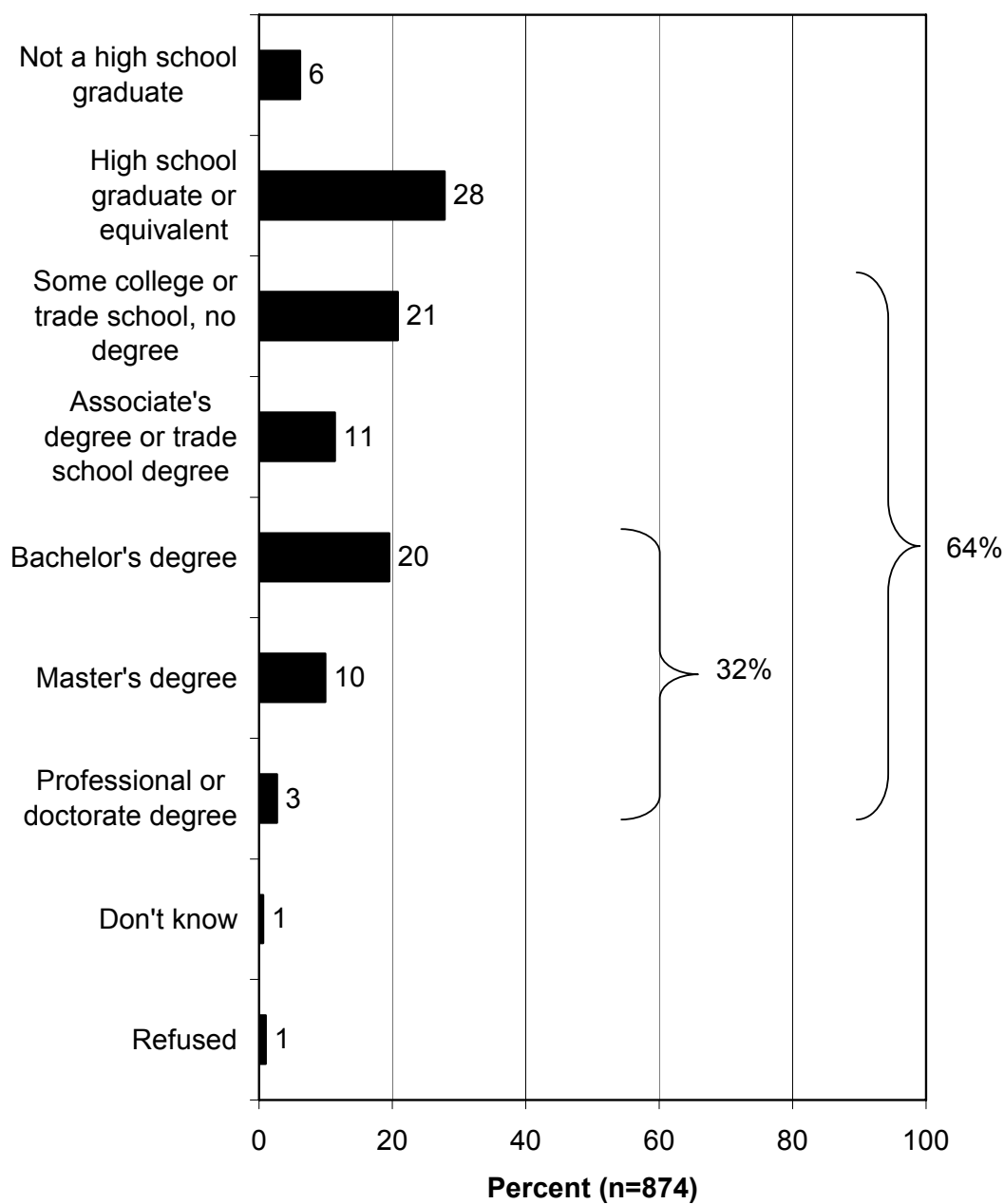
**Q119. Do you consider your place of residence to be a large city or urban area, a suburban area, a small city or town, a rural area on a farm or ranch, or a rural area not on a farm or ranch?
(Missouri residents)**



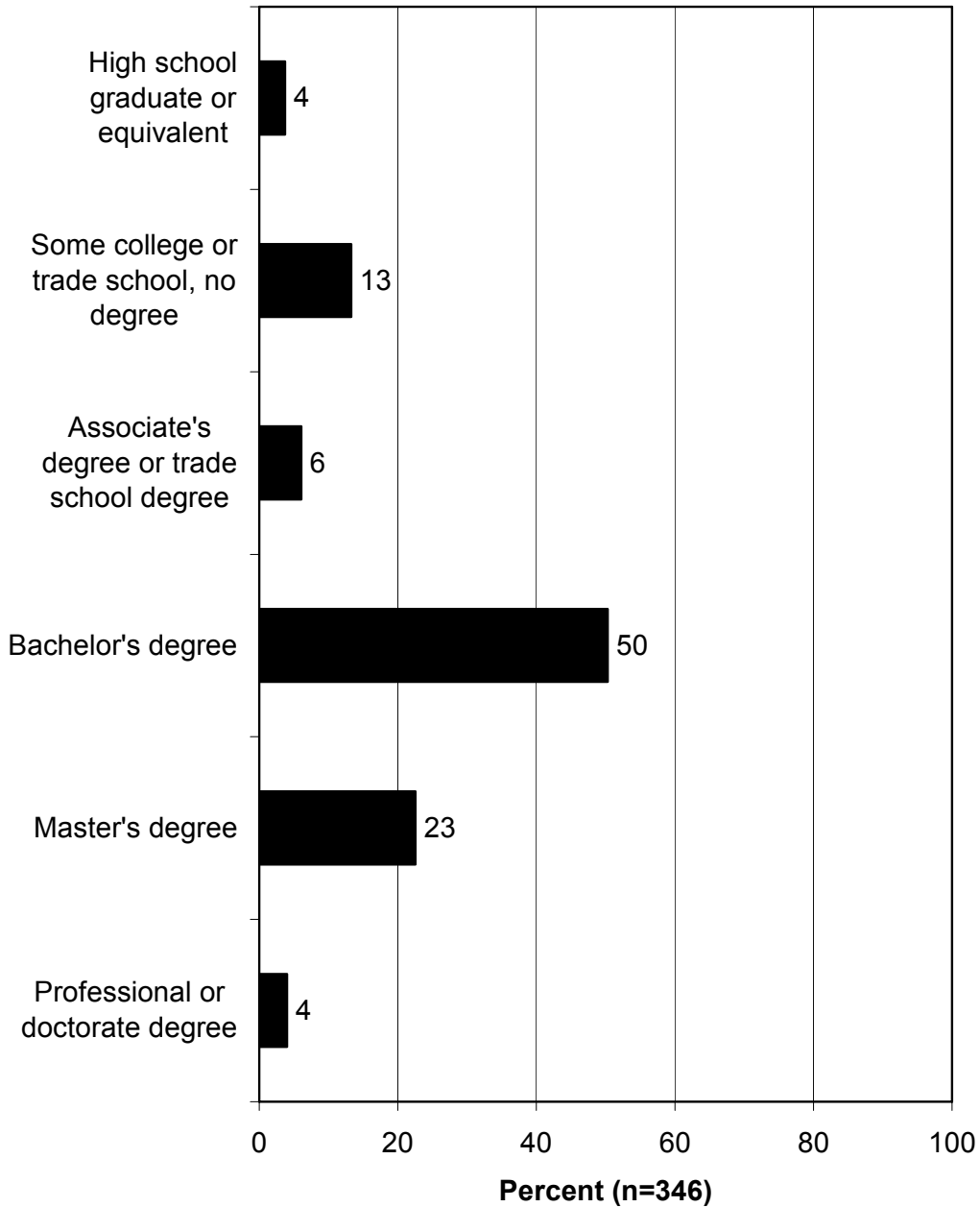
Q29. Do you consider your place of residence to be a ...? (Professionals)



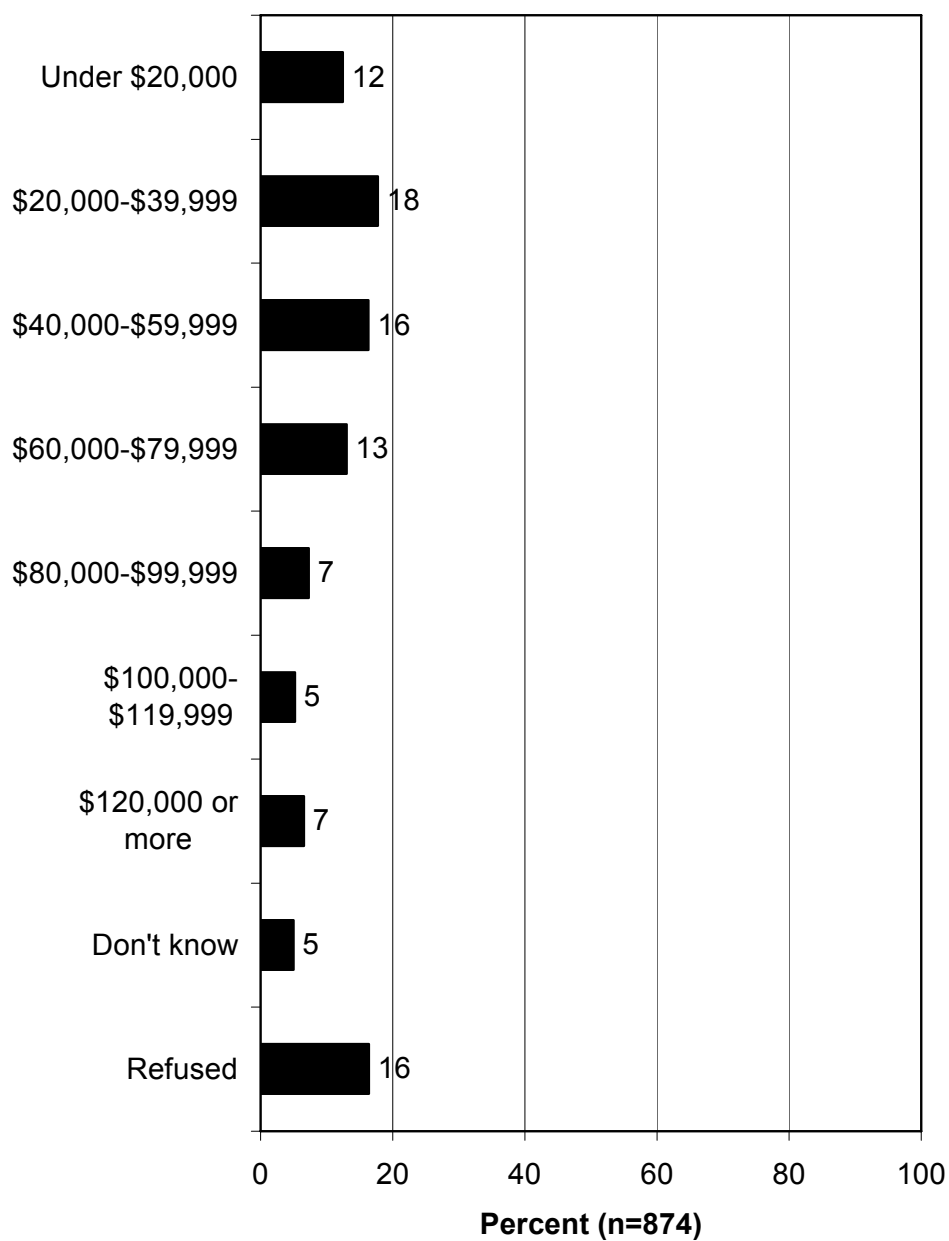
**Q120. What is the highest level of education you
have completed?
(Missouri residents)**



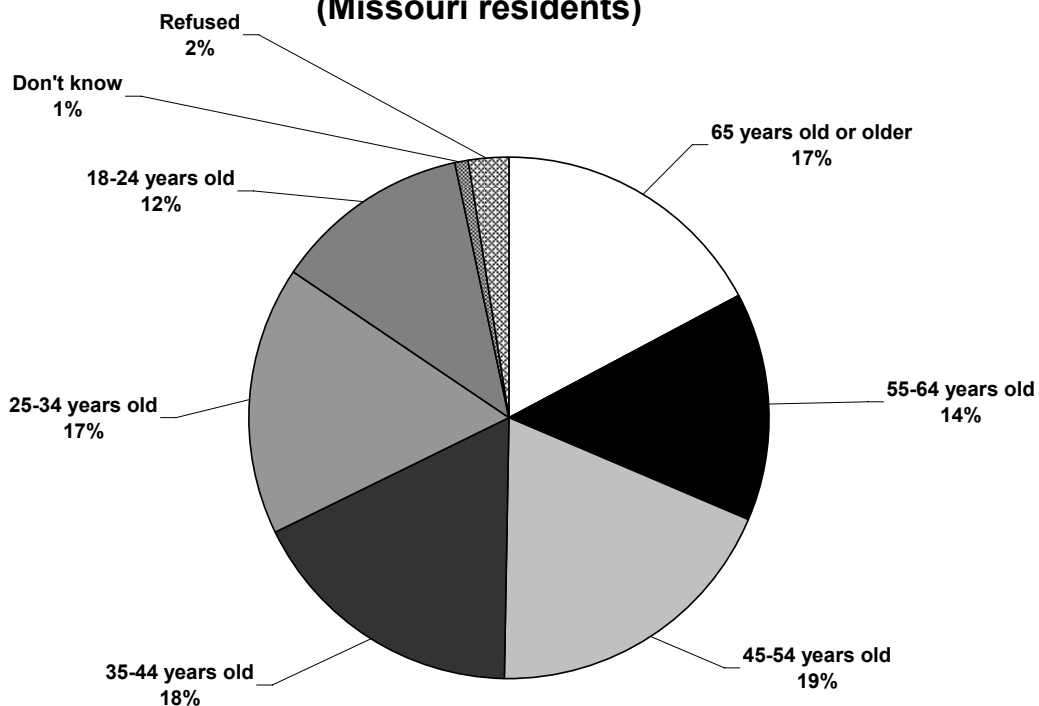
Q30. What is the highest level of education you have completed? (Professionals)



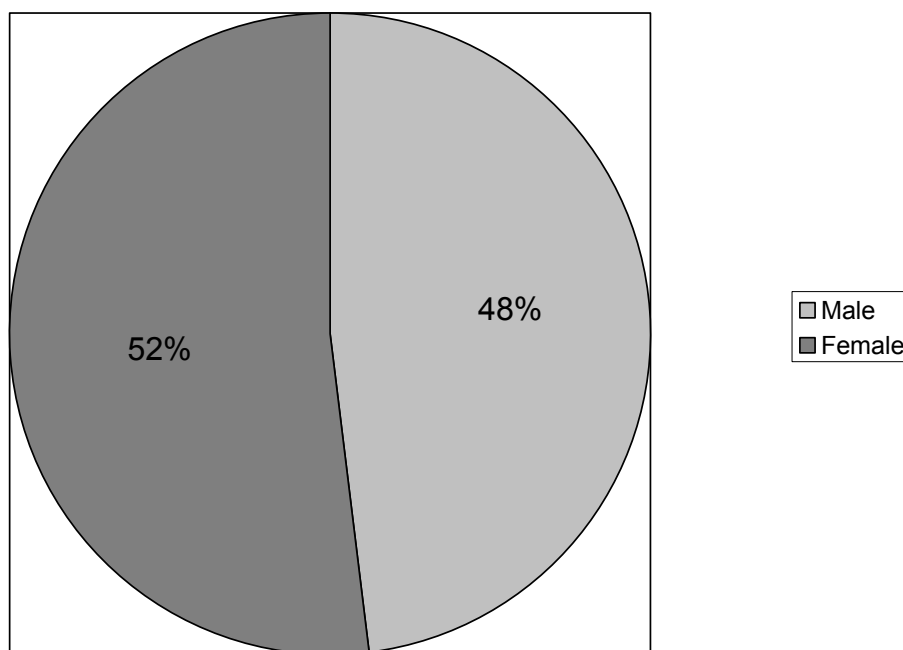
**Q125. Which of these categories best describes
your total household income before taxes last
year?
(Missouri residents)**

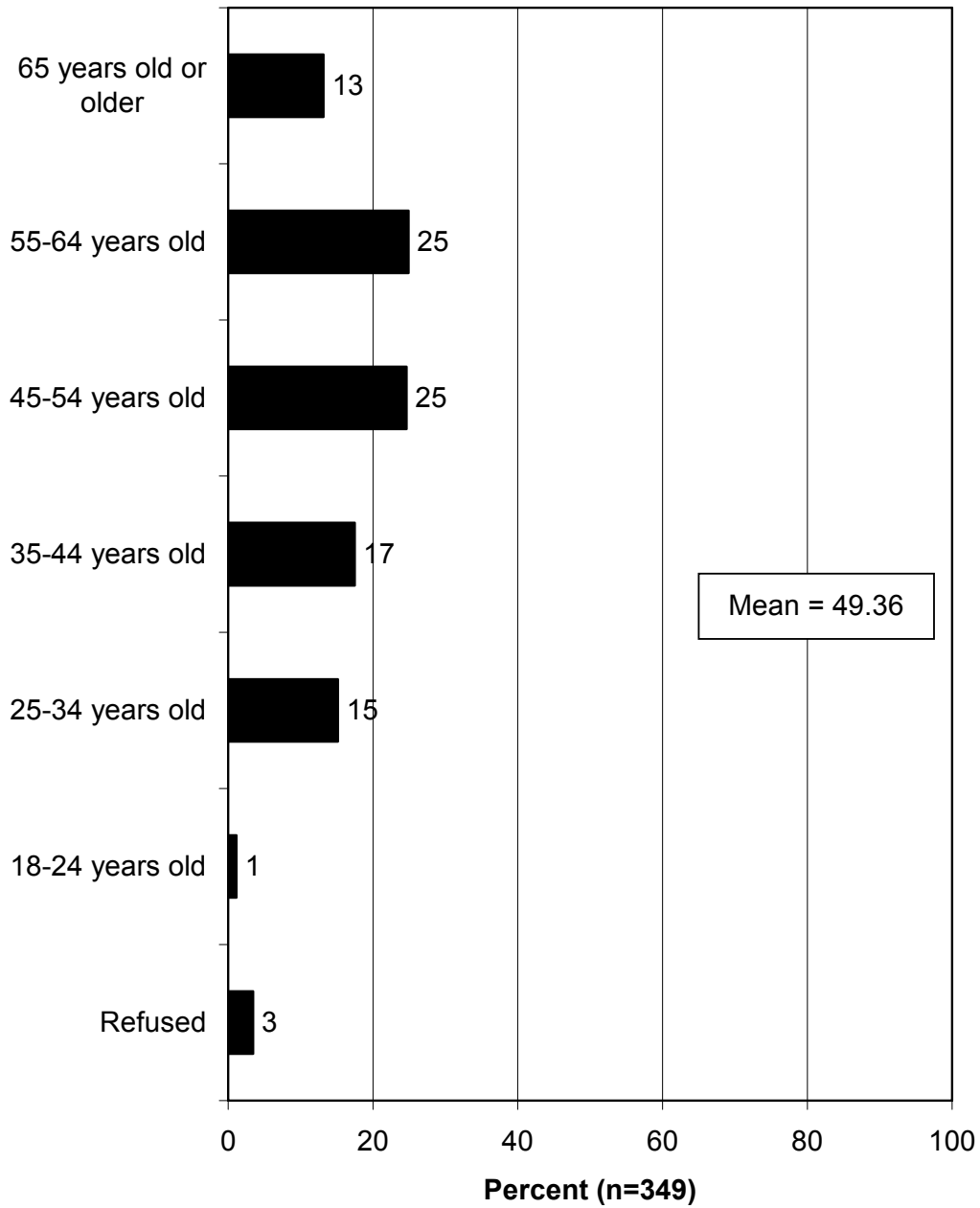


**Q126. Respondent's age.
(Missouri residents)**

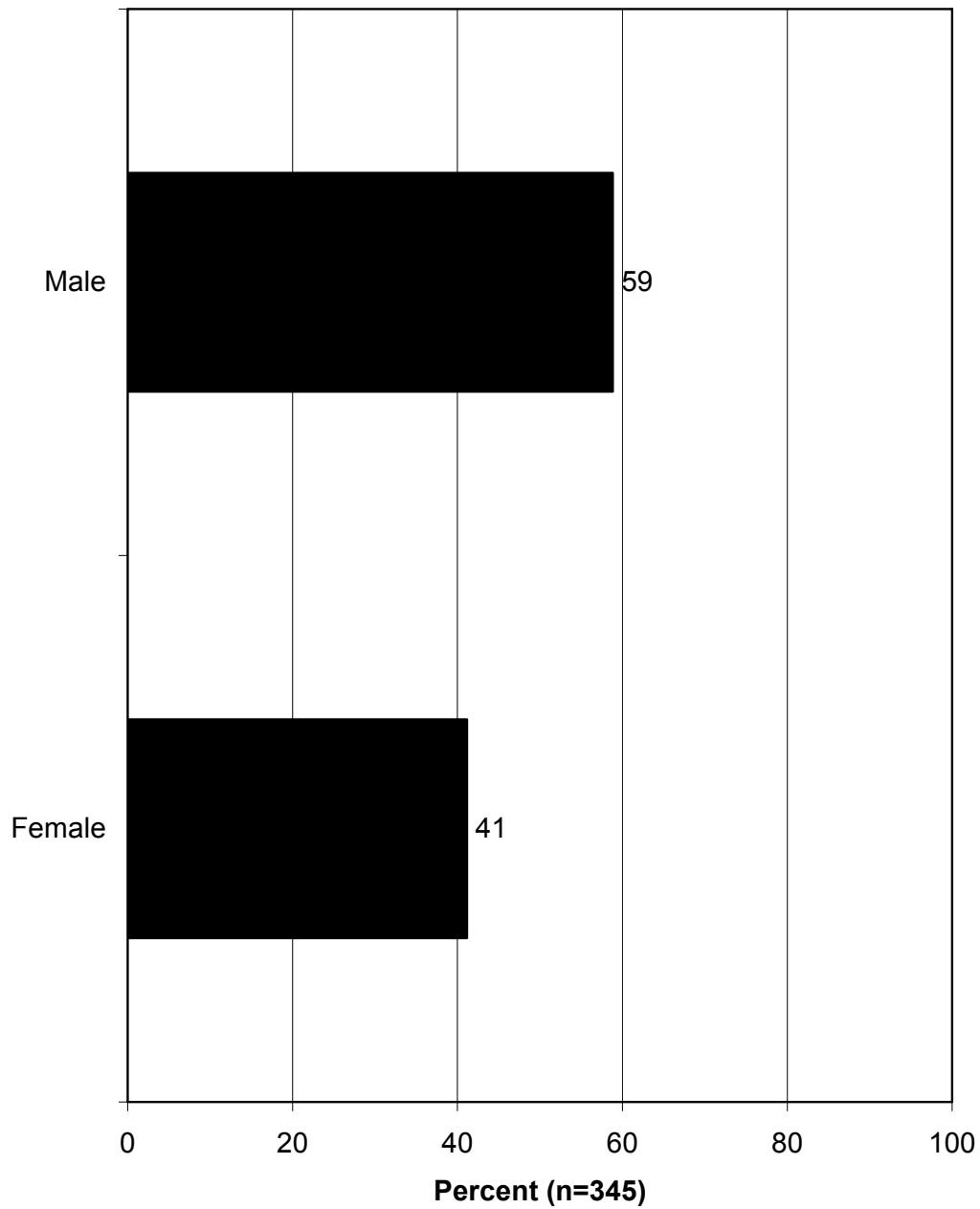


**Q126. Respondent's gender.
(Missouri residents)**

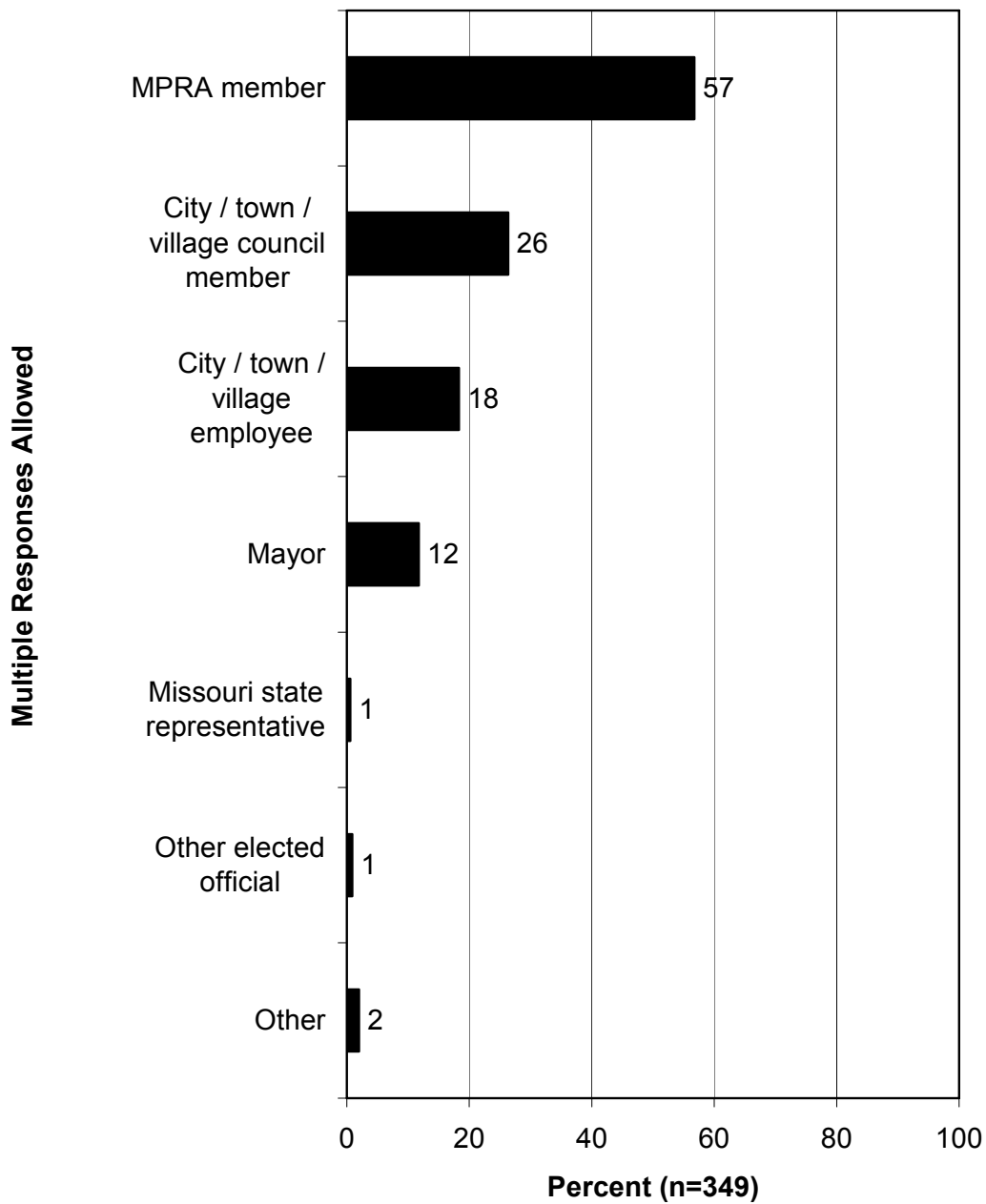


Q32. Respondent's age. (Professionals)

Q33. Are you male or female? (Professionals)



Q27. Which of the following describes your current position and/or association with the Missouri Park & Recreation Association? (Professionals)



APPENDIX A: PARKS, RECREATION AREAS, OR FACILITIES VISITED BY RESIDENTS IN THE PREVIOUS 2 YEARS (Listed Alphabetically)

Note that the following tabulation shows the percentage among those residents who could name the last park, recreation area, or facility they visited.

Name	Percent Visited*
Affton White-Rodgers Community Center	0.14
Alley Spring Park (part of Ozark National Scenic Riverway)	0.39
Amidon Memorial Conservation Area	0.19
Apple Creek Conservation Area	0.35
Arena Park (Cape Girardeau Co.)	0.13
Arnold City Park	0.43
Arrow Rock State Historic Site	0.31
Arrowhead Stadium	0.11
Ashley Park (Lebanon)	0.19
August A. Busch Memorial Conservation Area	1.38
Babler State Park	0.63
Baldwin Park	0.14
Battlefield City Park	0.19
Belton Community Center	0.14
Bennett Spring State Park	1.64
Big Lake State Park	0.39
Big Spring Park (part of Ozark National Scenic Riverway)	1.17
Black River	0.32
Blind Pony Lake	0.10
Blue Bird Park	0.10
Bohrer County Park	0.13
Branson (general area)	0.23
Brookfield (general area)	0.11
Burch Creek	0.20
Burr Oak Woods Conservation Nature Center	0.31
Butler (general area)	0.14
C. Lee Kenagy Park	0.13
Capen Park	0.27
Castlewood State Park	0.36
Centennial Park	0.50
Chesterfield (general area)	0.56
Clearwater (general area)	0.24
Clifton Heights Lake	0.62
Close Memorial Park	0.11
Clydesdale County Park	0.10
Cole County (general area)	0.19
Columbia (general area)	0.14
Columbia Cosmopolitan Recreation Area (aka Cosmo Park)	0.13
Creve Coeur County Park	1.82
Crowder State Park	0.42
Cuivre River State Park	0.92
Cunningham Park	0.13
Darter Park	0.46
Dawt Mill	0.12
Deer Lake Golf Course	0.13
Deer Ridge (general area)	0.53
Dewey Park (general area)	0.17
Dexter (general area)	0.36
Dockery Park	0.17
Dolling Park	0.10

Name	Percent Visited*
Elephant Rocks State Park	0.58
Empire Park	0.12
Engler Park	0.40
English Landing Park	0.19
Fellows Lake	0.13
Fenton City Park	0.11
Ferndale Park	0.13
Finley River Park	0.34
Fleming Park (aka Lake Jacomo)	1.27
Forest Park	4.63
Fort Osage	0.14
Fort Zumwalt Park	0.40
Fountain Bluffs Sports Complex	0.14
Frontier Park	0.17
Galloway (general area)	0.13
Garvin Park	0.27
Gasconade River	0.19
George Washington Carver National Monument	0.13
Gerald (general area)	0.14
Grant Beach Park	0.13
Grant's Farm	0.13
Grants Trail County Park	0.14
Greentop (general area)	0.14
Ha Ha Tonka State Park	1.16
Hammons Field (Springfield Cardinals stadium)	0.11
Hannibal (general area)	0.13
Happy Rock Park	0.20
Harris Park Community Center	0.46
Harrisonville (general area)	0.20
Harry S Truman Library and Museum	0.14
Harry S Truman State Park	1.58
Hawn State Park	0.37
Heisler Park	0.19
Henderson Park (Norfolk Lake area)	0.14
Hermann (general area)	0.13
Hill Park	0.17
Hodge Park Lake	0.13
Holden (general area)	0.14
Hyde Park	0.85
Indian Creek (general area)	0.13
Indian Foothills Park	0.11
J.D. Trail Riding Camp	0.18
Jackson (general area)	0.31
James A. Reed Memorial Wildlife Area	0.36
James River	0.10
January-Wabash Park	0.17
Jefferson Barracks County Park	0.57
Jefferson National Expansion Memorial (aka Gateway Arch)	1.57
John Anderson Park	0.47
Johnson's Shut-Ins State Park	0.13
Jones-Confluence Point State Park	0.13
Joplin (general area)	0.19
Katy Trail State Park	0.87
Kenneth E. Cowan Civic Center	0.46
Kentucky Lake	0.14
Kibler Park	0.17
King Jack Park	0.46
Kirkwood (general area)	0.13
Klondike Park	0.21

Name	Percent Visited*
Knob Noster State Park	0.20
Krug Park	0.14
LaBenite Park	0.26
Lake of the Ozarks State Park	0.85
Lake Wappapello State Park	0.97
Laumeier Sculpture Park	0.26
Legacy Park	0.52
Lewis and Clark State Park	0.39
Liberty (general area)	0.14
Liberty Community Center	0.19
Lindenwood (general area)	0.30
Little Indian Creek	0.39
Living Memorial Park	0.12
Lone Elk County Park	0.47
Long Branch State Park	0.30
Longview Lake	0.51
Loose Park	0.47
Manchester (general area)	0.17
Mark Twain National Forest	1.39
Mark Twain State Park	2.82
Markham Springs Recreation Area (in Mark Twain National Fore	0.14
Marquette Park	0.17
Marshall Diggs Wildlife Area	0.40
Marshfield Rotary Park	0.13
Mastodon State Historic Site	0.13
McCoy Park	0.50
Meadowmere Park	0.17
Meramec State Park	1.19
Mill Creek Park	0.14
Mingo National Wildlife Refuge	0.55
Mississippi River	0.12
Missouri Botanical Garden	0.49
Missouri Conservation Center	0.13
Missouri Town 1855	0.17
Monkey Mountain Trail	0.39
Montauk State Park	0.10
Morris State Park	0.26
Mussel Fork Conservation Area	0.14
Nathaniel Greene Park	0.26
National World War I Museum	0.26
Norfolk River	0.13
Normandy (general area)	0.13
North Kansas City Park	0.17
Nottoway Lake	0.13
Oak Grove (general area)	0.18
O'Fallon Park	0.42
Onondaga Cave State Park	0.34
Orleans Trail Resort and Marina	0.13
Overland (general area)	0.46
Owensville (general area)	0.13
Ozark Community Center	0.17
Ozark National Scenic Riverway (without naming specific park within)	0.88
Painted Rock State Forest	0.14
Parkville (general area)	0.46
Perkins Park	0.12
Perryville (general area)	0.12
Pershing State Park	0.38
Phelps Grove Park	0.17
Pickle Springs Natural Area	0.17

Name	Percent Visited*
Polo (general area)	0.11
Pomme de Terre State Park	0.32
Pony Express National Historic Trail	0.26
Powder Valley Conservation Nature Center	0.20
Powell's Garden	0.12
Progress Park	0.11
Public Beach 1 and 2 (Lake Ozark)	0.10
Quail Ridge Park	0.56
Queeney County Park	0.58
Rabbit Run Park	0.12
Remington Nature Center	0.19
Republic (general area)	0.14
River Cut Golf Course	0.13
River Oaks Golf Course	0.10
Roaring River State Park	0.30
Robertsville State Park	0.20
Rock Bridge Memorial State Park	0.61
Rock Port (general area)	0.10
Rogers Lake	0.12
Rothwell Park	0.27
Route 66 State Park	0.11
Runge Conservation Nature Center	0.10
Rutledge-Wilson Farm Park	0.33
Salisbury Park	0.46
Sam A. Baker State Park	0.34
Sequiota (general area)	0.45
Shaw Park	0.19
Sioux Passage County Park	0.26
Smithville Lake	0.10
Southmoreland (general area)	0.11
Spanish Lake County Park	0.24
Springfield (general area)	0.30
Springfield Conservation Nature Center	0.20
Springfield Nature Center	0.25
Squaw Creek National Wildlife Refuge	0.17
St. Anne's Park and Rose Gardens	0.12
St. Francois State Park	0.49
St. Joe State Park	0.52
St. Louis County (general area)	0.52
St. Louis Zoo	0.26
St. Peters Rec-Plex	0.43
St. Vincent County Park	0.85
Stevens Lake	0.56
Stewart Heights Park/Odair Baseball Field	0.13
Stockton State Park	0.67
Sugar Creek State Forest	0.13
Swan Lake National Wildlife Refuge	0.12
Swope Park	0.78
Table Rock State Park	1.23
Tanglewood Park	0.39
Ted Shanks Conservation Area	0.10
Theodosia (general area)	0.14
Thousand Hills State Park	0.29
Three Creeks Conservation Area	0.26
Tiffany Springs (general area)	0.14
Tilles County Park	0.19
Tipton Park Lake	0.10
Tower Grove Park	0.23
Trail of Tears State Park	0.25

Name	Percent Visited*
Union (general area)	0.11
Unionville (general area)	0.20
Van Meter State Park	0.27
Veterans Park	0.14
Wallace State Park	0.41
Warrensburg Community Center	0.26
Washington (general area)	0.12
Washington Riverfront Trail	0.19
Washington State Park	0.22
Watkins Woolen Mill State Park	0.79
Westboro-Canterbury Greenway	0.17
Weston Bend State Park	0.39
Wheeler Park	0.10
White Marble Park	0.13
Whitely Park	0.46
Wildcat Glades Conservation and Audubon Center	0.99
Willard (general area)	0.20
Wilson's Creek National Battlefield	0.11
Wyaconda (general area)	0.14
YMCA (city not named)	1.00
Named park not in Missouri (e.g., "Yellowstone")	0.72
Unknown / Not specific (e.g., "county park")	12.89

* Among those who could name the last park, recreation area, or facility they visited.

ABOUT RESPONSIVE MANAGEMENT

Responsive Management is a nationally recognized public opinion and attitude survey research firm specializing in natural resource and outdoor recreation issues. Its mission is to help natural resource and outdoor recreation agencies and organizations better understand and work with their constituents, customers, and the public.

Utilizing its in-house, full-service, computer-assisted telephone and mail survey center with 45 professional interviewers, Responsive Management has conducted more than 1,000 telephone surveys, mail surveys, personal interviews, and focus groups, as well as numerous marketing and communications plans, need assessments, and program evaluations on natural resource and outdoor recreation issues.

Clients include most of the federal and state natural resource, outdoor recreation, and environmental agencies, and most of the top conservation organizations. Responsive Management also collects attitude and opinion data for many of the nation's top universities, including the University of Southern California, Virginia Tech, Colorado State University, Auburn, Texas Tech, the University of California—Davis, Michigan State University, the University of Florida, North Carolina State University, Penn State, West Virginia University, and others.

Among the wide range of work Responsive Management has completed during the past 20 years are studies on how the general population values natural resources and outdoor recreation, and their opinions on and attitudes toward an array of natural resource-related issues. Responsive Management has conducted dozens of studies of selected groups of outdoor recreationists, including anglers, boaters, hunters, wildlife watchers, birdwatchers, park visitors, historic site visitors, hikers, and campers, as well as selected groups within the general population, such as landowners, farmers, urban and rural residents, women, senior citizens, children, Hispanics, Asians, and African-Americans. Responsive Management has conducted studies on environmental education, endangered species, waterfowl, wetlands, water quality, and the reintroduction of numerous species such as wolves, grizzly bears, the California condor, and the Florida panther.

Responsive Management has conducted research on numerous natural resource ballot initiatives and referenda and helped agencies and organizations find alternative funding and increase their memberships and donations. Responsive Management has conducted major agency and organizational program needs assessments and helped develop more effective programs based upon a solid foundation of fact. Responsive Management has developed websites for natural resource organizations, conducted training workshops on the human dimensions of natural resources, and presented numerous studies each year in presentations and as keynote speakers at major natural resource, outdoor recreation, conservation, and environmental conferences and meetings.

Responsive Management has conducted research on public attitudes toward natural resources and outdoor recreation in almost every state in the United States, as well as in Canada, Australia, the United Kingdom, France, Germany, and Japan. Responsive Management routinely conducts surveys in Spanish and has also conducted surveys and focus groups in Chinese, Korean, Japanese, and Vietnamese.

Responsive Management's research has been featured in most of the nation's major media, including CNN, ESPN, *The Washington Times*, *The New York Times*, *Newsweek*, *The Wall Street Journal*, and on the front pages of *The Washington Post* and *USA Today*.

Visit the Responsive Management website at:

www.responsivemanagement.com

Missouri SCORP

Residents Survey

**2013-2017 Statewide Comprehensive Outdoor
Recreation Plan**

Chris Sinnard, Pragmatic Research

Synergy/PRI/JPA
Synergy Group
Pragmatic Research, Inc.
James Pona Associates

10/27/2011

*A 2011 survey of Missouri residents, conducted as part of the 2013-2017 Statewide Comprehensive
Outdoor Recreation Plan (SCORP)*

Executive Summary

This study of outdoor recreation trends and issues in the state of Missouri was commissioned by the Missouri Department of Natural Resources - Division of State Parks to fulfill the federal requirements for the 2012-2017 Statewide Comprehensive Outdoor Recreation Plan (SCORP). The SCORP is a five-year plan, for the years of 2013 through 2017, for meeting the recreational needs of the citizens of the State of Missouri.

The objectives of this study, conducted through a statewide telephone survey of Missouri residents, were to identify and assess and quantify outdoor recreation activity and facility availability, demand and popularity; activity levels, facility usage, and whether they are set to increase or decrease in the next five years.

This quantitative research study aims to:

- Collect pertinent information pertaining to outdoor recreation in the State of Missouri
- Provide recommendations for further action based on research findings

The key findings and recommendations of this study are:

Familiarity with outdoor recreation:

- 35.4% of Missouri residents are very familiar with outdoor recreation in their area.

General activity levels and distance travelled to participate in outdoor recreation:

- During the past year, 37.5% of Missouri residents typically traveled zero to four miles to participate in outdoor recreation during the week.
- 18.5% of Missouri residents traveled 100 miles or more to participate in outdoor recreation during the weekend.
- Urban Missouri residents travel less distance to participate in outdoor recreation compared to rural Missouri residents
- 22.0% of Missouri residents participate in outdoor recreation between one and two hours during the week.
- 37.7% of Missouri residents participate in outdoor recreation at least five to eight hours during the week.
- 34.2% of Missouri residents live less than one mile from an outdoor recreation facility.
- 60.8% of Missouri residents live within two miles of an outdoor recreation facility.
- 49.4% of Missouri residents perceive their household's overall outdoor recreation usage increasing at least a little more than the next five years.
- 21.6% of Missouri residents perceive their household's overall outdoor recreation usage increasing or increasing a lot in the next five years.
- 36.3% of Missouri residents participated in some sort of outdoor recreation activity within the past week.
- 56.0% of Missouri residents participated in some sort of outdoor recreation activity within the past month.
- The main reasons why Missouri residents don't participate in outdoor recreation are health concerns, disabilities, lack of interest, cost/economic concerns, and age concerns.

Outdoor recreation facility usage:

- Urban Missouri residents use walkable streets or sidewalks and local parks more frequently than rural Missouri residents.
- Rural Missouri residents use fishing sites, lakes and rivers more frequently than urban Missouri residents.
- More than 70% of Missouri residents have used a local park or a walkable street or sidewalk in their neighborhood in the past year.
- More than 60% of Missouri residents have visited a historic/education site in the past year.
- More than 50% of Missouri residents have used a lake, garden, picnic area or state park in the past year.
 - More than 20% of garden users indicated there were too few or way too few gardens when asked about local supply.
- More than 40% of Missouri residents have used a fishing site, trail, nature area/park, rivers, wildlife areas, national or state forests, boating and water sport access sites or playgrounds in the past year.
 - More than 20% of trail users indicated there were too few or way too few when asked about supply.
- More than 30% of Missouri residents have used an outdoor swimming pool, a national park or monument or a camping site in the past year.
 - More than 20% of outdoor swimming pool users and more than 20% of camping site users indicated there were too few or way too few when asked about supply.
- Most requested facility types were trails (foot and bike) and walkable sidewalks and sidewalks.

Participation in outdoor recreation activities:

- Frequently used activities that are expected to increase in the next five years include fishing, camping in a campground, bicycling, baseball, golf, running/jogging, and soccer.
- Urban Missouri residents participate in more walking, bicycling, baseball and golf activities compared to rural Missouri residents.
- Rural Missouri residents participate in more fishing, boating, sailing, canoeing and kayaking, target shooting, hunting, and ATV/off road riding compared to urban Missouri residents.
- More than 80% of Missouri residents participated in walking or a family gathering in the past year.
- More than 70% of Missouri residents participated in driving for sightseeing or gardening in the past year.
- More than 60% of Missouri residents participated in picnicking, outdoor swimming or wildlife observation/birding in the past year.
- More than 50% of Missouri residents participated in fishing or boating, sailing, canoeing and kayaking in the past year.
 - More than 20% of fishing participants indicated their usage is either increasing or increasing a lot.
- More than 40% of Missouri residents participated in playgrounds, camping in a campground, bicycling or dog walking in the past year.
 - More than 20% of camping and bicycling participants indicated their usage is either increasing or increasing a lot.
- More than 30% of Missouri residents hiking, wildlife/outdoor photography, target shooting or baseball in the past year.
- Most requested activities were walking/hiking activities and youth related programs.

Attitudes:

- More than 75% of Missouri residents agree or strongly agree that outdoor recreation benefits Missouri residents and more than 25% of Missouri residents strongly agree with that statement.
- More than 75% of Missouri residents agree or strongly agree that outdoor recreation is important to them and more than 25% of Missouri residents strongly agree with that statement.
- More than 60% of Missouri residents agree that Missouri is well known for outdoor recreation.
- More than 50% of Missouri residents agree that funding outdoor recreation in Missouri is a high priority.
- More than 50% of Missouri residents agree that trails are important to their household.

Satisfaction - Facilities:

- 40.5% of Missouri residents are very satisfied overall with outdoor recreation facilities in Missouri.
- 38% of Missouri residents are very satisfied overall with the distance to local outdoor recreation facilities.
- 37.7% of Missouri residents are very satisfied with travel time and congestion to local outdoor recreation facilities.
- 35.7% of Missouri residents are very satisfied overall with the professionalism of local outdoor recreation employees.
- 36.3% of Missouri residents are very satisfied with outdoor recreation facilities in their local area.
- 35.2% of Missouri residents are very satisfied overall with the safety of local outdoor recreation facilities
- 35.1% of Missouri residents are very satisfied with the availability of local outdoor recreation facilities
- 35.0% of Missouri residents are very satisfied with the quality of local outdoor recreation facilities.
- 32.5% of Missouri residents are very satisfied with the cleanliness of local outdoor recreation facilities.
- 31.2% of Missouri residents are very satisfied with the number of local outdoor recreation facilities.
 - Performing below average and scored high on relative importance
- 28.1% of Missouri residents are very satisfied with the variety of local outdoor recreation facilities.
 - Performing below average and scored high on relative importance
- 16.0% of Missouri residents are very satisfied overall with pet/dog accommodations at facilities.

Satisfaction - Activities:

- 44.9% of Missouri residents are very satisfied overall with outdoor recreation activities in Missouri.
- 37.5% of Missouri residents are very satisfied with outdoor recreation activities in their local area.
- 37.0% of Missouri residents are very satisfied with the availability of local outdoor recreation activities.
- 36.0% of Missouri residents are very satisfied with the accessibility of outdoor recreation activity information.
- 33.3% of Missouri residents are very satisfied with the variety of local outdoor recreation activities.
 - Variety of local outdoor recreation activities is performing below average and scored high on relative importance.
- 32.6% of Missouri residents are very satisfied with the quality of local outdoor recreation activities.
- 23.2% of Missouri residents are very satisfied with community participation in local outdoor recreation activities.
- 21.9% of Missouri residents are very satisfied with quality of organized/supervised recreation programs.
- 21.4% of Missouri residents are very satisfied with the availability of organized/supervised outdoor recreation programs.
- 18.2% of Missouri residents are very satisfied with their interactions with other outdoor recreation users and groups.

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Background and Research Objectives

Background: This study was conducted for the Missouri Department of Natural Resources, Division of State Parks (hereinafter referred to as the state agency), the agency responsible for the management of Missouri's state parks, to fulfill the federal requirements of the 2013-2017 Missouri SCORP.

The SCORP is a five-year plan, for the years of 2013 through 2017, for meeting the recreational needs of the citizens of the State of Missouri. One requirement of the 2013-2017 Missouri SCORP was to develop a survey of Missouri residents in order to identify critical issues of statewide importance, and to identify trends and issues impacting the future of outdoor recreation in the State of Missouri.

The state agency contracted the joint venture team of Synergy Group/Pragmatic Research, Inc./James Pona Associates (hereinafter referred to as Synergy/PRI/JPA) to conduct a telephone study among Missouri residents.

Research Problem: Identify critical issues and trends of statewide importance impacting the future of outdoor recreation in Missouri.

Research Objectives: The objectives of this study were to identify and assess critical issues, priorities and obstacles related to outdoor recreation facilities and activities in the state of Missouri; and to quantify and assess activity and facility availability, usage patterns, demand and popularity; satisfaction with outdoor recreation activities and facilities; and perceptions of outdoor recreation among Missouri residents..

These objectives were addressed through 21 research questions (tested through 15 screening/demographic questions and 25 survey questions) as outlined below:

- **Management Problem:** How familiar are Missouri residents with outdoor recreation in Missouri?
 - **Research Question 1:** *How familiar are Missouri residents with outdoor recreation in Missouri?*
 - **Research Objectives**
 - RO1.1 Determine outdoor recreation familiarity among Missouri residents.
- **Management Problem:** How far do Missouri residents travel to participate in recreation activities and how long do they participate?
 - **Research Question 2:** *How far do Missouri residents travel to participate in outdoor recreation activities?*
 - **Research Objectives:**
 - RO2.1 Determine how far Missouri residents travel to participate in outdoor recreation during the week (i.e. Monday through Thursday).
 - RO2.2 Determine how far Missouri residents travel to participate in outdoor recreation during the weekend (i.e. Friday through Sunday).
 - **Research Question 3:** *How many hours per week do Missouri residents participate in outdoor recreation?*
 - **Research Objectives:**
 - RO3.1 Determine how many hours Missouri residents participate in outdoor recreation during the week (i.e. Monday through Thursday).
 - RO3.2 Determine how many hours Missouri residents participate in outdoor recreation during the weekend (i.e. Friday through Sunday).
- **Management Problem:** How available is outdoor recreation in Missouri?
 - **Research Question 4:** *How satisfied are Missouri residents with the availability of outdoor recreation activities?*

- RO4.1 Determine satisfaction of Missouri residents with the availability of local outdoor recreation activities.
 - RO4.2 Determine satisfaction of Missouri residents with availability of organized/supervised outdoor recreation programs.
- **Research Question 5:** *What types of outdoor recreation activities do Missouri residents want to see more of in their local area?*
 - RO5.1 Determine what types of outdoor recreation activities Missouri residents want to see more of in their local area.
- **Research Question 6:** *How available are outdoor recreation facilities in Missouri?*
 - RO6.1 Determine proximity of Missouri residents to the closest local outdoor recreation facility.
 - RO6.2 Determine availability of outdoor recreation facilities among Missouri residents.
 - RO6.3 Determine supply of local outdoor recreation facilities among Missouri residents.
- **Research Question 7:** *How likely are Missouri residents to use currently unavailable facilities if they were made available?*
 - RO7.1 Determine the likelihood of Missouri residents to use currently unavailable facilities if they were made available.
- **Research Question 8:** *How satisfied are Missouri residents with the availability of outdoor recreation facilities?*
 - RO8.1 Determine satisfaction of Missouri residents with the number of outdoor recreation facilities.
 - RO8.2 Determine satisfaction of Missouri residents with the availability of outdoor recreation facilities.
- **Research Question 9:** *What types of outdoor recreation facilities do Missouri residents want to see more of in their local area?*
 - RO9.1 Determine what types of outdoor recreation facilities Missouri residents want to see more of in their local area.
- **Management Problem:** How popular is outdoor recreation among Missouri residents?
 - **Research Question 10:** *How often do Missouri residents participate in outdoor recreation activities?*
 - RO10.1 Determine how often Missouri residents participate in outdoor recreation activities.
 - RO10.2 Determine other outdoor recreation activities among Missouri residents.
 - **Research Question 11:** *Are activity levels of various outdoor recreation activities in Missouri increasing, decreasing, or remaining the same among Missouri residents?*
 - RO11.1 Determine overall perceived outdoor recreation activity level change among Missouri residents.
 - RO11.2 Determine perceived outdoor recreation activity level changes among Missouri residents in the next five years.

Research Question 12: *How often do Missouri residents use outdoor recreation facilities in Missouri?*

- RO12.1 Determine how often Missouri residents use out outdoor recreation facilities in Missouri.
- RO12.2 Determine other outdoor recreation facilities being used by Missouri residents.
- **Management Problem:** Why aren't Missouri residents participating in outdoor recreation activities?
 - **Research Question 13:** Why aren't Missouri residents participating in outdoor recreation activities?
 - **Research Objectives**
 - RO13.1 Determine reasons Missouri residents aren't participating in outdoor recreation activities
- **Management Problem:** How satisfied are Missouri residents with outdoor recreation in Missouri?
 - **Research Question 14:** *How satisfied are Missouri residents with outdoor recreation activities in Missouri?*
 - **Research Objectives:**
 - RO14.1 Determine overall satisfaction of Missouri residents with outdoor recreation activities in Missouri as a whole.
 - RO14.2 Determine overall satisfaction of Missouri residents with local outdoor recreation activities.
 - **Research Question 15:** *How satisfied are Missouri residents with various aspects of outdoor recreation activities in Missouri?*
 - **Research Objectives:**
 - RO15.1 Determine satisfaction of Missouri residents with the *quality* of local outdoor recreation activities.
 - RO15.2 Determine satisfaction of Missouri residents with the *availability* of local outdoor activities (see RO4.1).
 - RO15.3 Determine satisfaction of Missouri residents with *accessibility* of outdoor recreation activity information.
 - RO15.4 Determine satisfaction of Missouri residents with *variety* of local outdoor recreation activities.
 - RO15.5 Determine satisfaction of Missouri residents with *community participation* in local outdoor recreation activities.
 - RO15.6 Determine satisfaction of Missouri residents with outdoor *user and group interactions*.
 - RO15.7 Determine satisfaction of Missouri residents with the *quality of organized/supervised recreation programs*.
 - RO15.8 Determine satisfaction of Missouri residents with the *availability of organized/supervised outdoor recreation programs* (see RO4.2)
 - **Research Question 16:** *How satisfied are Missouri residents with outdoor recreation facilities in Missouri?*
 - **Research Objectives:**
 - RO16.1 Determine overall satisfaction of Missouri residents with outdoor recreation facilities in Missouri as a whole.
 - RO16.2 Determine overall satisfaction of Missouri residents with local outdoor recreation facilities.
 - **Research Question 17:** *How satisfied are Missouri residents with various aspects of outdoor recreation facilities in Missouri?*
 - **Research Objectives:**

- RO17.1 Determine satisfaction of Missouri residents with the *number* of outdoor recreation facilities (see RO8.1).
- RO17.2 Determine satisfaction of Missouri residents with the *quality* of local outdoor recreation facilities.
- RO17.3 Determine satisfaction of Missouri residents with the *availability* of local outdoor recreation facilities (see RO8.2).
- RO17.4 Determine satisfaction of Missouri residents with the *variety* of local outdoor recreation facilities.
- RO17.5 Determine satisfaction of Missouri residents with the *safety* of local outdoor recreation facilities.
- RO17.6 Determine satisfaction of Missouri residents with the *cleanliness* of local outdoor recreation facilities.
- RO17.7 Determine satisfaction of Missouri residents with the *distance* to local outdoor recreation facilities.
- RO17.8 Determine satisfaction of Missouri residents with *travel time and congestion* to local outdoor recreation facilities.
- RO17.9 Determine satisfaction of Missouri residents with *pet/dog accommodations* of local outdoor recreation facilities.
- RO17.10 Determine satisfaction of Missouri residents with the *professionalism of local outdoor recreation employees*.
- **Research Question 18:** *What is the relative importance of various aspects of outdoor recreation in Missouri compared to their performance?*
 - RO18.1 Determine relative importance of various aspects of outdoor recreation activities.
 - RO18.2 Determine relative importance of various aspects of outdoor recreation facilities.
 - RO18.3 Determine the relative performance of various aspects of outdoor recreation facilities and activities compared to their performance.
- **Management Problem:** What are some opinions and perceptions of Missouri residents regarding outdoor recreation in Missouri?
 - **Research Question 19:** *How do Missouri residents perceive outdoor recreation in Missouri?*
 - **Research Objectives:**
 - RO19.1 Determine perceptions of Missouri residents regarding outdoor recreation in Missouri.
 - RO19.2 Determine perceptions of Missouri parents with regard to their children's outdoor recreation activities.
- **Management Problem:** Are there any critical issues or improvements regarding outdoor recreation in Missouri among Missouri residents?
 - **Research Question 20:** *Are there any crucial issues regarding outdoor recreation in Missouri among Missouri residents?*
 - RO20.1 Determine perceived issues regarding outdoor recreation among Missouri residents.
 - **Research Question 21:** *Are there any suggestions from Missouri residents on how to improve outdoor recreation in Missouri?*

- RO21.1 Determine respondent suggestions for improving outdoor recreation in Missouri among Missouri residents.

Methodology

This study was a conclusive, descriptive, and cross-sectional study conducted using a Computer Assisted Telephone (CATI) Survey. Qualified respondents included Missouri residents that participated in outdoor recreation at least once within the past year.

Sampling was divided among two populations, rural and urban, and n=384 completes were collected in each region, providing a 95% +/- 5% confidence interval for both regions. Confidence intervals are obtained by multiplying the standard error of the mean by the z-value for desired confidence level, 1.96 for 95% and 1.645 for 90%, and then adding and subtracting it from the mean score (95% C.I. = $\bar{x} \pm 1.96 * S.E$ and 90% C.I. = $\bar{x} \pm 1.645 * S.E$). Random sampling frames were provided by PRI. 16,006 records were included in the total sample (7,718 urban records and 8,288 rural records), which covered 782 cities in Missouri, 905 zip codes, and 111 counties (see Appendix C for breakdowns).

Results were combined and weighed based on the 70%/30% urban/rural population ratio in Missouri. Weighting is performed in order to avoid skewing the analysis towards the overrepresented/smaller population (rural in this case).

Weights are determined by the ratio (70% - i.e. 0.7 - for urban and 30% - i.e. 0.3 - for rural) divided by the proportion of the sample that belongs to each group (50% - i.e. 0.5 - for rural and 50% - i.e. 0.5 - for urban in this case, n=384 for both), leading to the following weighting factors:

- Urban Weight = $0.7/0.5 = 1.4$
- Rural Weight = $0.3/0.5 = 0.6$

All combined frequency counts and mean scores were weighted based on what sample they came from.

Data Collection Instrument and Procedure

SYNERGY/PRI/JPA assisted the state agency in developing the survey instrument. SYNERGY/PRI/JPA programmed the survey to allow for CATI using Ci3 software. The survey was pre-tested among PRI's interview staff to make sure it was clear, easy to understand, flowed and skipped properly.

Of the 16,006 unique records, a total of n=775 completes were collected, for an overall response rate of 4.8%.

Of the 7,718 urban records, 11,253 dials were made to collect n=391 completed questionnaires (3.47% of dials), for an overall response rate of 5%. Seven records were removed from the urban sample due to incomplete data. Six respondents were terminated for not being residents (0.05% of dials) and 102 potential respondents were terminated due to inadequate participation (s14, 0.91% of dials). Incidence was 21.28%.

Of the 8,288 rural records, 8,667 dials were made to collect n=384 completed questionnaires (4.44% of dials) for an overall response rate of 4.6%. Three respondents were terminated for not being a resident (s2, 0.03% of dials) and 140 potential respondents were terminated for inadequate participation in recreation (s14, 1.62% of dials). Incidence was 21.67%.

Assuming a population size of 5,988,927 (US Census Bureau 2010 population: <http://quickfacts.census.gov/qfd/states/29000.html>), and assuming a 70/30 urban/rural split, the urban population in Missouri is roughly 4,192,249 and the rural population of Missouri is roughly 1,796,678, n=384 completes will provide a 95% +/- 5% confidence interval for both urban and rural populations, as well as Missouri as a whole (when weighted).

Fieldwork started on July 8th, 2011, and was finished on August 11th, 2011. 19,920 total telephone dials were made over 689.10 total hours (374.88 hours for urban and 314.22 hours for rural). Interviews lasted approximately 25.18 minutes on average (26.12 minutes/cpl for urban and 24.25 minutes/cpl for rural), and interviewers made an average of 25.86 dials per every complete (29.15 dials/cpl for urban and 22.57 dials/cpl for rural). On average, one interview was completed every 1.12 logon hours (1.03 cpl/hour for urban and 1.21 cpl/hour for rural).

For activity and facility usage (q5 and q13), respondent participation/usage was restricted to the past year. Any respondents who had not participated in an activity or used a facility within the past year were coded as never for those activities and facilities. Respondents who participated at least once per year but not two to three times a month were coded as at least once per year, and respondents who used a facility at least once per year but not every four to six months were coded as at least once per year.

Action Standards

Action Standards are benchmarks or threshold levels used to determine when action on a particular issue is recommended, based on the level of responses. Action Standards are applied to the entire sample or to subgroups of the sample that have a minimum of n=96 responses, a response large enough to produce a confidence level of 95% +/- 10%. That means a minimum of n=96 are needed from either the overall sample (combined rural vs. rural, n=758, N=~5,988,927), the urban sample (n=368, N=~4,192,249) or the rural sample (n=368, N=~1,796,678) in order to be considered in an Action Standard. The following Action Standards have been established for the research questions in this study:

RQ1: *How familiar are Missouri residents with outdoor recreation in Missouri?*

Action Standard 1.1 (AS1.1)

- IF familiarity with outdoor recreation mean score is less than 3.5 OR top box score is less than 30% THEN recommend taking action (s13).

RQ4: *How satisfied are Missouri residents with the availability of outdoor recreation activities?*

Action Standard 4.1 (AS4.1)

- IF satisfaction with availability of local outdoor recreation activities mean score is less than 3.0 OR top box score is less than 30% THEN recommend taking action (q10_2).

Action Standard 4.2 (AS4.2)

- IF satisfaction with availability of organized/supervised outdoor recreation programs mean score is less than 3.5 OR top box score is less than 30% THEN recommend taking action (q10_8).

RQ5: *What types of outdoor recreation activities do Missouri residents want to see more of in their local area?*

Action Standard 5.1 (AS5.1)

- IF more than 8.85% (n=68) of respondents in the total sample (n=768) OR more than 17.7% (n=68) of respondents from either the rural or urban samples scored less than a 5/5 on satisfaction with availability of local outdoor recreation activities OR IF more than 8.85% (n=68) of respondents in the total sample (n=768) OR more than 17.7% (n=68) of respondents from either the rural or urban samples scored less than a 5/5 on satisfaction with availability of organized/supervised outdoor recreation programs AND more than 5% mentioned an activity when asked what types of activities they would like to see more of in their area THEN recommend taking action (q10_2, q10_8 and q11).

RQ6: *How available are outdoor recreation facilities in Missouri?*

Action Standard 6.2 (AS6.2)

- IF more than 5% of respondents do not have a specific type of facility available THEN recommend taking action (q13_1 through q13_34).

Action Standard 6.3 (AS6.3)

- IF more than 8.85% (n=68) of respondents in the total sample (n=768) OR more than 17.7% (n=68) of respondents from either the rural or urban samples use a facility type at least once a year AND more than 20% indicate supply of a facility type is either too few OR way too few THEN recommend taking action (q13_1 through q13_34 and q14_1 through q14_34).

RQ7: *How likely are Missouri residents to use currently unavailable facilities if they were made available?*

Action Standard 7.1 (AS7.1)

- IF more than 8.85% (n=96) of respondents in the total sample (n=768) OR more than 17.7% (n=96) of respondents from either the rural or urban samples do not have a facility type available AND likelihood to use the facility if it were available mean score is above 3.5 THEN recommend taking action (q13_1 through q13_34 and q15_1 through q15_34).

RQ8: *How satisfied are Missouri residents with the availability of outdoor recreation facilities in Missouri?*

Action Standard 8.1 (AS8.1)

- IF satisfaction with the number of local outdoor recreation facilities mean is less than 3.5 OR IF top box score is less than 30% THEN recommend taking action (q21_1).

Action Standard 8.2 (AS8.2)

- IF satisfaction with availability of outdoor recreation facilities mean is less than 3.5 OR top box score is less than 30% THEN recommend taking action (q21_3).

RQ9: *What types of outdoor recreation activities do Missouri residents want to see more of in their local area?*

Action Standard 9.1 (AS9.1)

- IF more than 8.85% (n=68) of respondents in the total sample (n=768) OR more than 17.7% (n=68) of respondents from either the rural or urban samples scored less than a 5/5 on satisfaction with the number of local outdoor facilities OR IF more than 8.85% (n=68) of respondents in the total sample (n=768) OR more than 17.7% (n=68) of respondents from either the rural or urban samples scored less than a 5/5 on satisfaction with availability outdoor recreation facilities AND more than 5% mentioned a facility type when asked what types of facilities they would like to see more of in their area THEN recommend taking action (q21_1 and q22).

RQ10: *How often do Missouri residents participate in outdoor recreation activities?*

Action Standard 10.1 (AS10.1)

- IF more than 20% of respondents use a facility at least once per year THEN recommend taking action (q5).

Action Standard 10.2 (AS10.2)

- IF more than 5% of respondents mention an unlisted activity type THEN recommend taking action (q7).

RQ11: *Are activity levels of various outdoor recreation activities in Missouri increasing, decreasing, or remaining the same among Missouri residents?*

Action Standard 11.2 (AS11.2)

- IF more than 8.85% (n=96) of respondents in the total sample (n=768) OR more than 17.7% (n=96) of respondents from either the rural or urban participate in a specific activity in their area at least once per year AND more than 20% indicate their activity is either increasing or increasing a lot THEN recommend taking action (q5_1 through q5_36 and q6_1 through q6_36).

RQ12: *How often do Missouri residents use outdoor recreation facilities in Missouri?*

Action Standard 12.1 (AS12.1)

- IF more than 20% of respondents use a facility type at least at least once per month THEN recommend taking action (q13_1 through q13_34).

Action Standard 12.2 (AS12.2)

- IF more than 5% of respondents mention an unlisted facility type THEN recommend taking action (q16).

RQ14: *How satisfied are Missouri residents with outdoor recreation activities in Missouri?*

Action Standard 14.1 (AS14.1)

- IF overall satisfaction with outdoor recreation activities in Missouri mean score is below a 4.0 OR top box score is below 30% THEN recommend taking action (q8).

Action Standard 14.2 (AS14.2)

- IF overall satisfaction with local outdoor activities mean score is below a 4.0 OR top box is below 30% THEN recommend taking action (q9).

RQ15: *How satisfied are Missouri residents with various aspects of outdoor recreation activities in Missouri?*

Action Standard 15.1 (AS15.1)

- IF satisfaction with quality of local outdoor recreation activities mean score is below a 3.5 OR top box score is below 30% THEN recommend taking action (q10_1).

Action Standard 15.2 (AS15.2)

- See Action Standard 4.1 (AS4.1, RQ4, RO4.1).

Action Standard 15.3 (AS15.3)

- IF satisfaction with accessibility of outdoor recreation information mean score is below a 3.5 OR top box score is below 30% THEN recommend taking action (q10_3).

Action Standard 15.4 (AS15.4)

- IF satisfaction with variety of local outdoor recreation activities mean score is below a 3.5 OR top box score is below 30% THEN recommend taking action (q10_4).

Action Standard 15.5 (AS15.5)

- IF satisfaction with community participation in local outdoor recreation activities mean score is below a 3.5 OR top box score is below 30% THEN recommend taking action (q10_5).

Action Standard 15.6 (AS15.6)

- IF satisfaction with user and group interactions mean score is below a 3.5 OR top box score is below 30% THEN recommend taking action (q10_6).

Action Standard 15.7 (AS15.7)

- IF satisfaction with quality of organized/supervised recreation programs mean score is below a 3.5 OR top box score is below 30% THEN recommend taking action (q10_7).

Action Standard 15.8 (AS15.8)

- See Action Standard 4.1 (AS4.2, RO4.2, RO4.2).

RQ16: *How satisfied are Missouri residents with outdoor recreation facilities in Missouri?*

Action Standard 16.1 (AS16.1)

- IF overall satisfaction with outdoor recreation facilities in Missouri mean score is below a 4.0 OR top box score is below 30% THEN recommend taking action (q19).

Action Standard 16.2 (AS16.2)

- IF overall satisfaction with local outdoor facilities mean score is below a 4.0 OR top box is below 30% THEN recommend taking action (q20).

RQ17: *How satisfied are Missouri residents with aspects of outdoor recreation facilities in Missouri?*

Action Standard 17.1 (AS17.1)

- See Action Standard 8.1 (AS8.1, RQ8, RO8.1)

Action Standard 17.2 (AS17.2)

- IF satisfaction with quality of local outdoor recreation facilities mean score is below a 3.5 OR top box score is below 30% THEN recommend taking action (q21_2).

Action Standard 17.3 (AS17.3)

- See Action Standard 8.3 (AS8.3, RQ8, RO8.3)

Action Standard 17.4 (AS17.4)

- IF satisfaction with variety of local outdoor recreation facilities mean score is below a 3.5 OR top box score is below 30% THEN recommend taking action (q21_4).

Action Standard 17.5 (AS17.5)

- IF satisfaction with safety of local outdoor recreation facilities mean score is below a 3.5 OR top box score is below 30% THEN recommend taking action (q21_5).

Action Standard 17.6 (AS17.6)

- IF satisfaction with cleanliness of local outdoor recreation facilities mean score is below a 3.5 OR top box score is below 30% THEN recommend taking action (q21_6).

Action Standard 17.7 (AS17.7)

- IF satisfaction with distance to local outdoor recreation facilities mean score is below a 3.5 OR top box score is below 30% THEN recommend taking action (q21_7).

Action Standard 17.8 (AS17.8)

- IF satisfaction with travel time and congestion to local outdoor recreation facilities mean score is below a 3.5 OR top box score is below 30% THEN recommend taking action (q21_8).

Action Standard 17.9 (AS17.9)

- IF satisfaction with pet/dog accommodations of local outdoor recreation facilities mean score is below a 3.5 OR top box score is below 30% THEN recommend taking action (q21_9).

Action Standard 17.10 (AS17.10)

- IF satisfaction with professionalism of local outdoor recreation employees mean score is below a 3.5 OR top box score is below 30% THEN recommend taking action (q21_10).

RQ18: *What is the relative importance of various aspects of outdoor recreation in Missouri compared to their performance?*

Action Standard 18.3.1 (AS18.1)

- IF relative importance score is ABOVE the 50th percentile AND satisfaction mean score is ABOVE the 50th percentile THEN maintain performance and maintain emphasis (q8, q9, q10_1 through q10_8, q19, q19, and q21_1 through q21_10).

Action Standard 18.3.2 (AS18.2)

- IF relative importance score is ABOVE the 50th percentile AND satisfaction mean score is BELOW the 50th percentile THEN emphasize increasing performance (q8, q9, q10_1 through q10_8, q19, q19, and q21_1 through q21_10).

Action Standard 18.3.3 (AS18.3)

- IF relative importance score is BELOW the 50th percentile AND satisfaction mean score is ABOVE the 50th percentile THEN deemphasize and shift resources to elements determined by AS18.1 (q8, q9, q10_1 through q10_8, q19, q19, and q21_1 through q21_10).

Action Standard 18.3.4 (AS18.4)

- IF relative importance score is BELOW the 50th percentile AND satisfaction mean score is BELOW the 50th percentile THEN take action but deemphasize (q8, q9, q10_1 through q10_8, q19, q19, and q21_1 through q21_10).

RQ20: *Are there any crucial issues regarding outdoor recreation in Missouri among Missouri residents?*

Action Standard 20.1 (AS20.1)

- IF more than 5% of respondents mention a perceived issue THEN take action (q24).

RQ21: *Are there any suggestions or improvements from Missouri residents on how to improve outdoor recreation in Missouri?*

Action Standard 21.1 (AS21.1)

- IF more than 5% of respondents mention a suggestion THEN take action (q25).

Tabulation and Data Analysis Techniques

The following statistical techniques were used to compile this report.

- **Descriptive Statistics:** Includes frequency distributions, means, variances, and other statistical measures. Used to describe the composition of the survey sample and provide preliminary data examinations
- **T-Test:** Statistical test to assess whether the means of two groups are statistically different than one another, e.g. Males vs. Females
- **Crosstab:** Cross-tabulations in order to examine frequencies of observations that belong to specific categories on more than one variable
- **Bivariate Correlation:** Bivariate (two variable) analysis that measures the strength of association between two variables on a scale of -1.0 to 1.0, where 1.0 means the two variables are perfectly correlated. The square of the bivariate correlation is an always positive number between 0 and 1.0 that is used to determine the amount of shared variance among the two variables being correlated.

Detailed Results

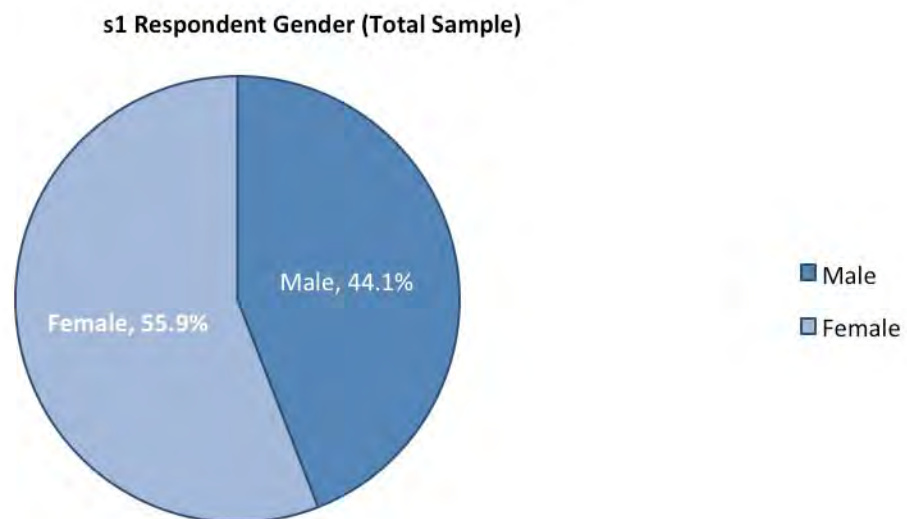
A. Composition of the Sample

Respondent data was collected among rural and urban populations within Missouri. 16,006 records were included in the random sample (7,718 urban records and 8,288 rural records). The sample covered 782 cities in Missouri, 905 zip codes, and 111 counties. 391 urban completes and 384 rural completes were collected. Seven completes were removed from the urban sample due to incomplete data, leaving a total of 768 completes to be used in the analysis. Screener data was collected from all respondents (n=1273), including those who disqualified due to lack of participation (s14, n=242).

Frequency tables for all questions can be found in Appendix B: s1 through s15.

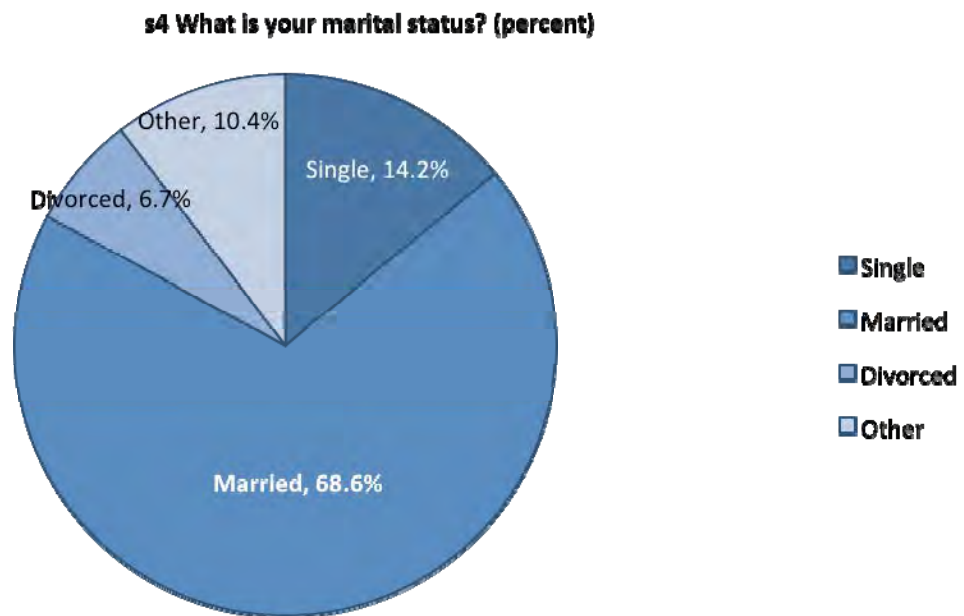
Respondent gender was recorded for all respondents (Chart S.1a and Appendix B: s1).

Chart S.1a. Respondent Gender Data



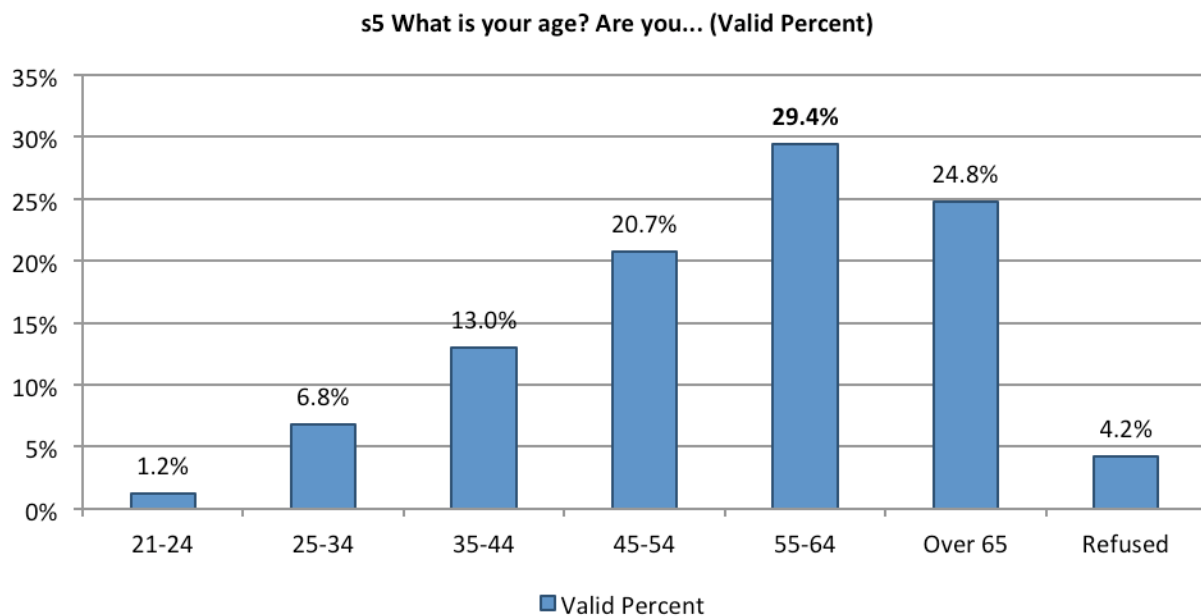
Respondents were asked their marital status (Chart S.1b and Appendix B: s4).

Chart S.1b. Respondent Marital Status



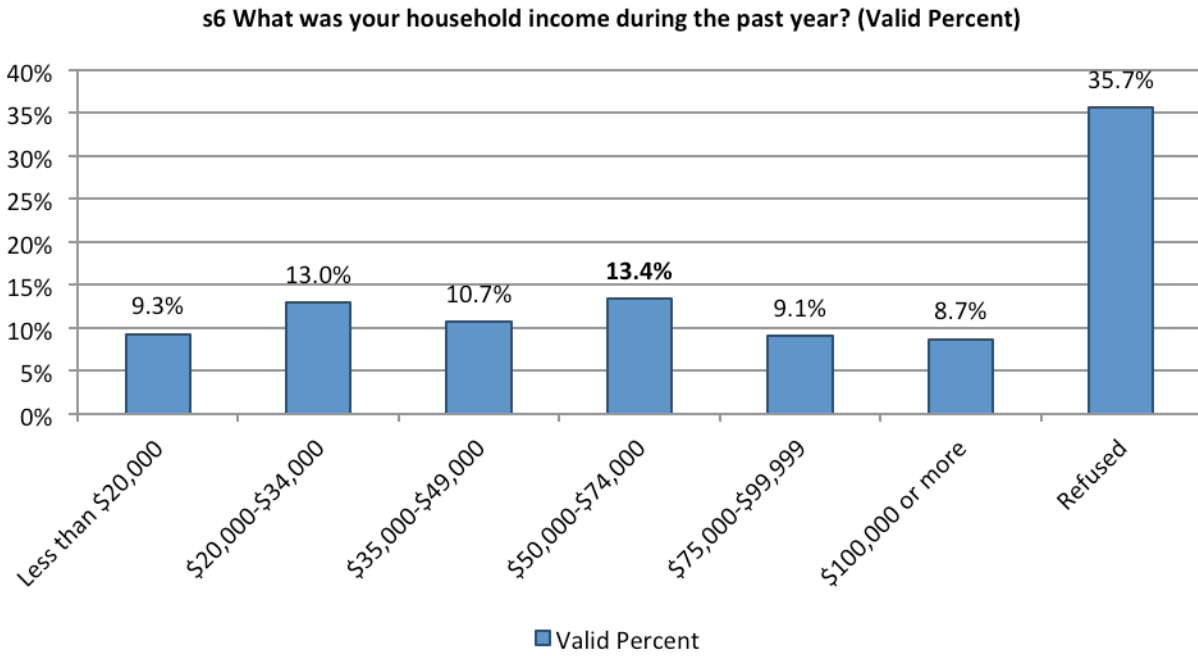
Respondents were asked their age category (Chart S.1c and Appendix B: s5).

Chart S.1c. Respondent Age Data



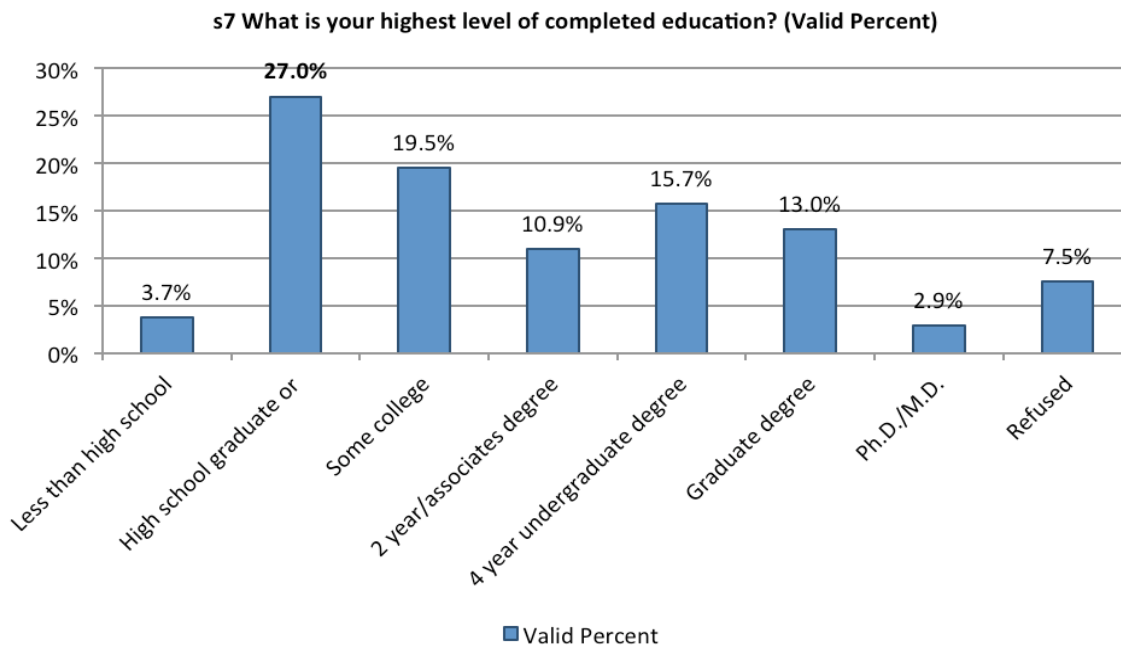
Respondents were asked their household income more than the past year (Chart S.1d and Appendix B: s6).

Chart S.1d. Respondent Income Data



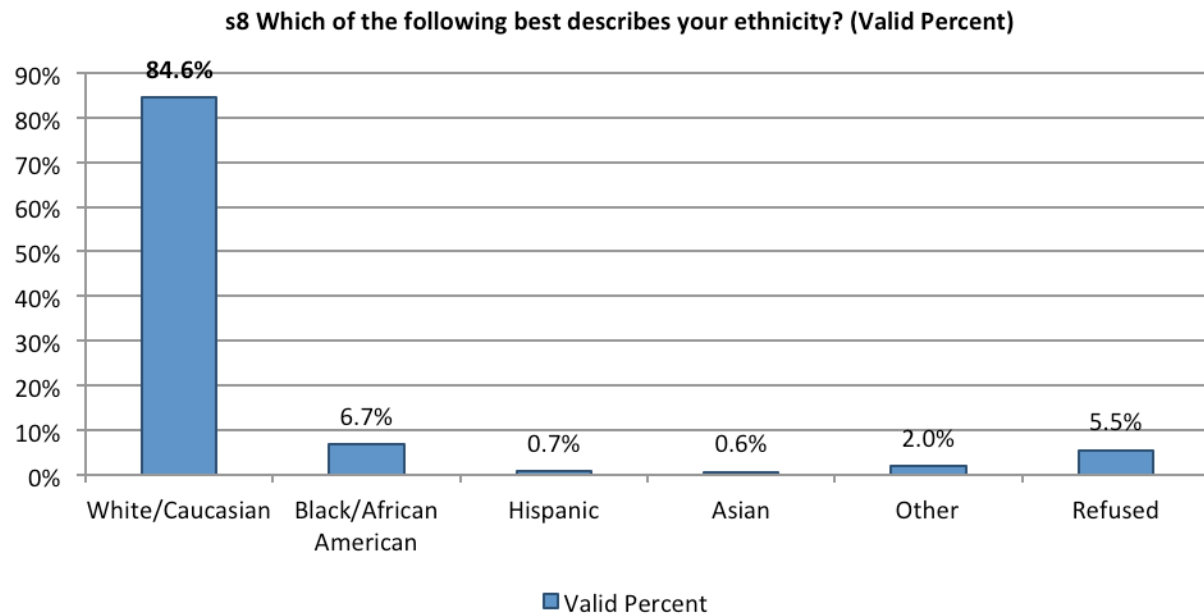
Respondents were asked the highest level of education they've completed (Chart S.1e and Appendix B: s7).

Chart S.1e. Respondent Education Data



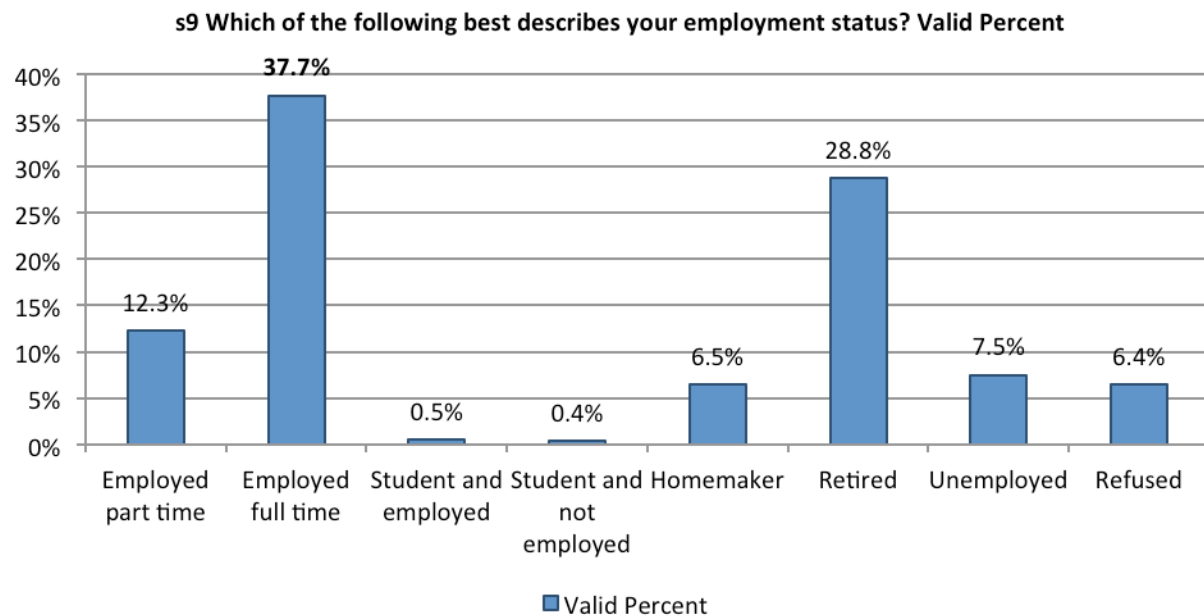
Respondents were asked their ethnicity (Chart S.1f and Appendix B: s8).

Chart S.1f. Respondent Ethnicity Data



Respondents were asked their employment status (s9, Chart S.1g).

Chart S.1g. Respondent Employment Status



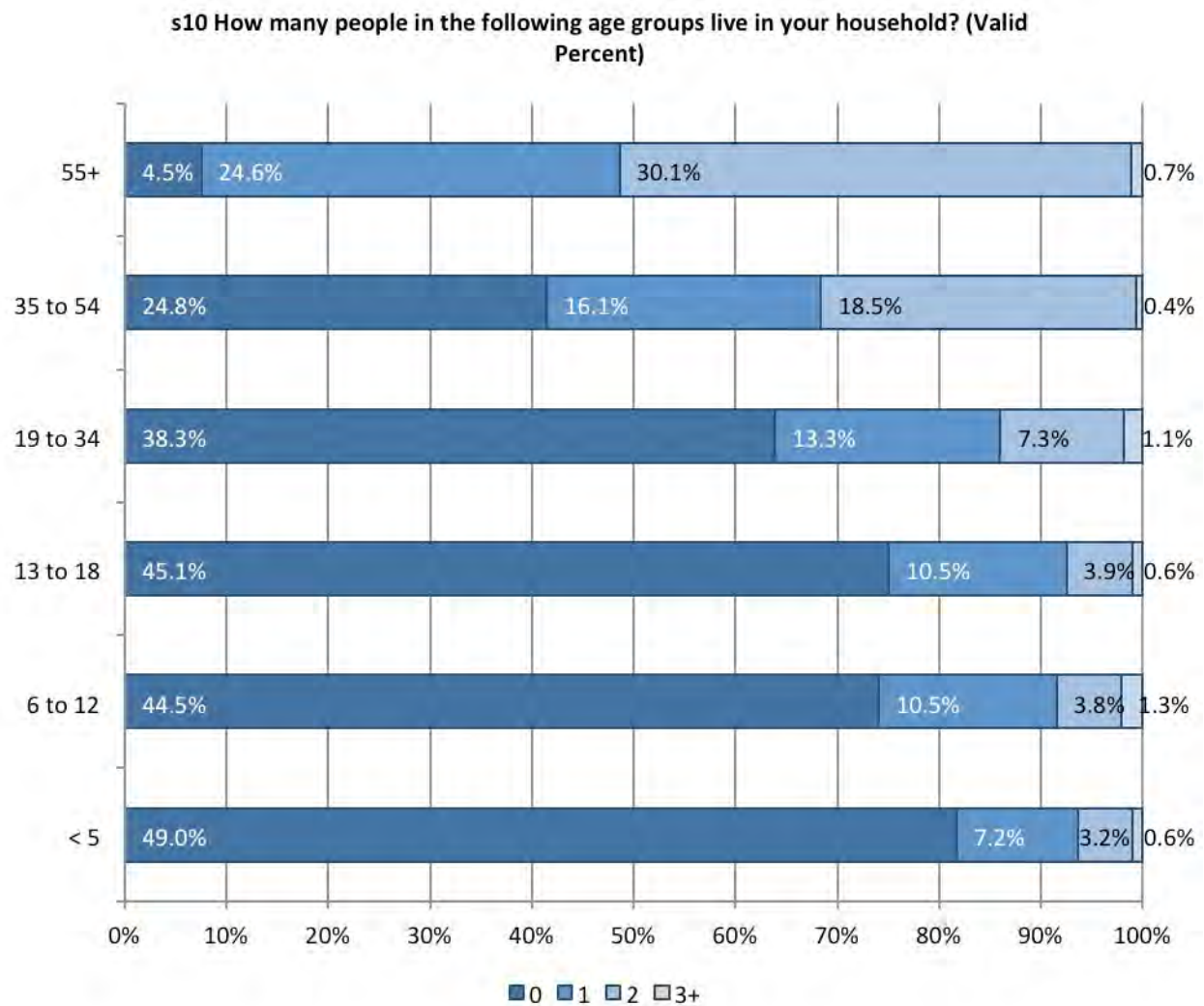
Respondents were asked how many people from different age categories live in their household (Table S.1h, Chart S.1h and Appendix B: s10).

Table S.1h. Descriptive Statistics (urban and rural combined and weighted)
s10 How many people in the following age groups live in your household?

	N _w	Mean	Std. Dev.
Number of children in household under 5	1126	0.16	0.516
Number of children in household between 6 and 12	1125	0.22	0.589
Number of children in household between 13 and 18	1124	0.21	0.571
Number of adults in household between 19 and 34	1124	0.31	0.652
Number of adults in household between 35 and 54	1124	0.57	1.076
Number of adults in household over 55	1123	0.91	1.521

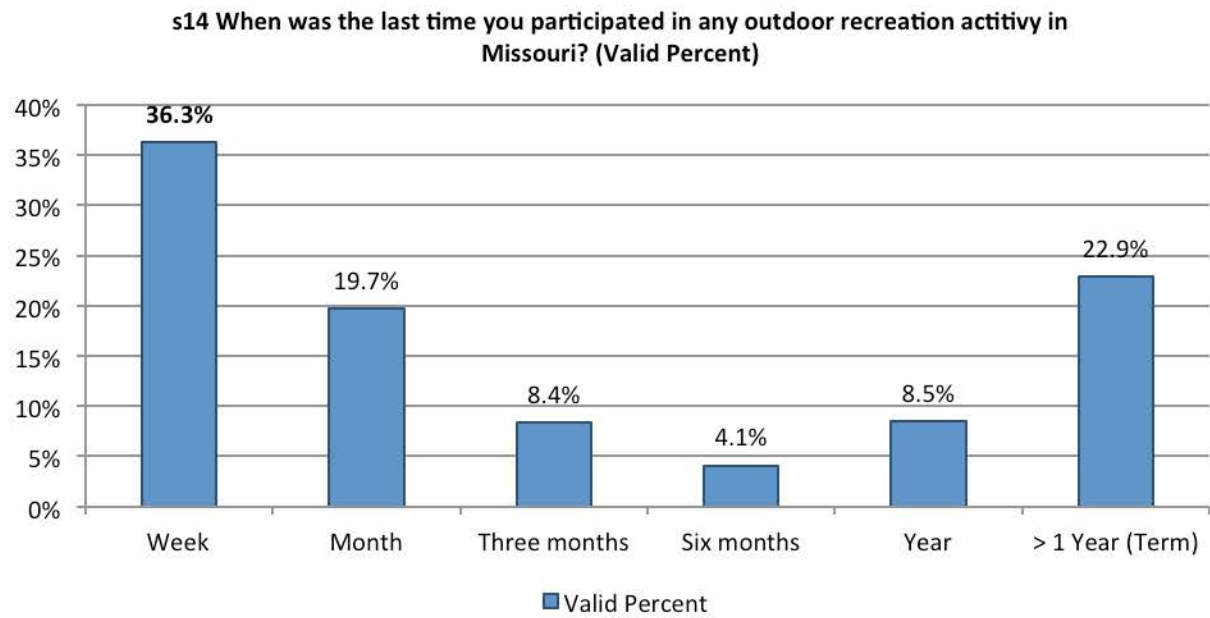
(w) Indicates weighted score

Chart S.1h. Respondent Household Age Data



Respondents were asked the last time they participated in any outdoor recreation activity in Missouri (Chart S.1i).

Chart S.1i. Respondent Outdoor Recreation Activity



B. RESEARCH QUESTIONS (RQ1 – RQ8)

Management Problem

- *How familiar are Missouri residents with outdoor recreation in Missouri?*

Research Question 1 (RQ1)

- *How familiar are Missouri residents with outdoor recreation in Missouri?*

Research Objective 1.1 (RO1.1)

- *Determine outdoor recreation familiarity among Missouri residents.*

Respondents were asked how familiar they are with outdoor recreation in their area using a 1 to 5 scale with 1 being “Not at all familiar” and 5 being “Very familiar” (Table RO1.1a, Chart RO1.1a and Appendix B: s13).

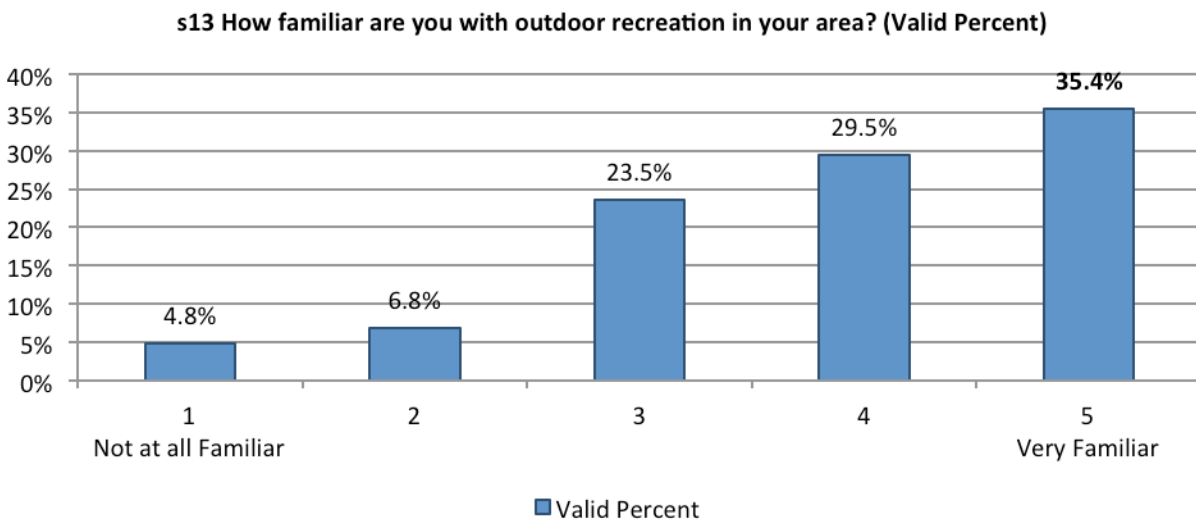
- 35.4% ($n_w=272$) of Missouri residents are very familiar with outdoor recreation in their area.
- 95% confident that familiarity among Missouri residents with local outdoor recreation is between 3.76 and 3.92 ($\bar{x}_w=3.84 \pm 0.080$).

Table RO1.1a. Group Statistics (urban and rural combined and weighted, urban raw and rural raw)
s13 How familiar are you with outdoor recreation in your area?

	Frequency _w	Mean _w	Std. Error	Std. Dev.
s13 How familiar are you with outdoor recreation in your area?	768	3.84	0.041	1.128

(_w) Indicates weighted score

Chart RO1.1a. Familiarity with Outdoor Recreation



Action Standard 1.1 (AS1.1)

- IF familiarity with outdoor recreation mean score is less than 3.5 OR top box score is less than 30% THEN recommend taking action (s13).

✖ *No action recommended.*

Management Problem

- *How far do Missouri residents travel to participate in recreation activities and how long do they participate?*

Research Question 2 (RQ2)

- *How far do Missouri residents travel to participate in outdoor recreation activities?*

Research Objective 2.1 (RO2.1)

- *Determine how far Missouri residents travel to participate in outdoor recreation during the week (i.e. Monday through Thursday).*

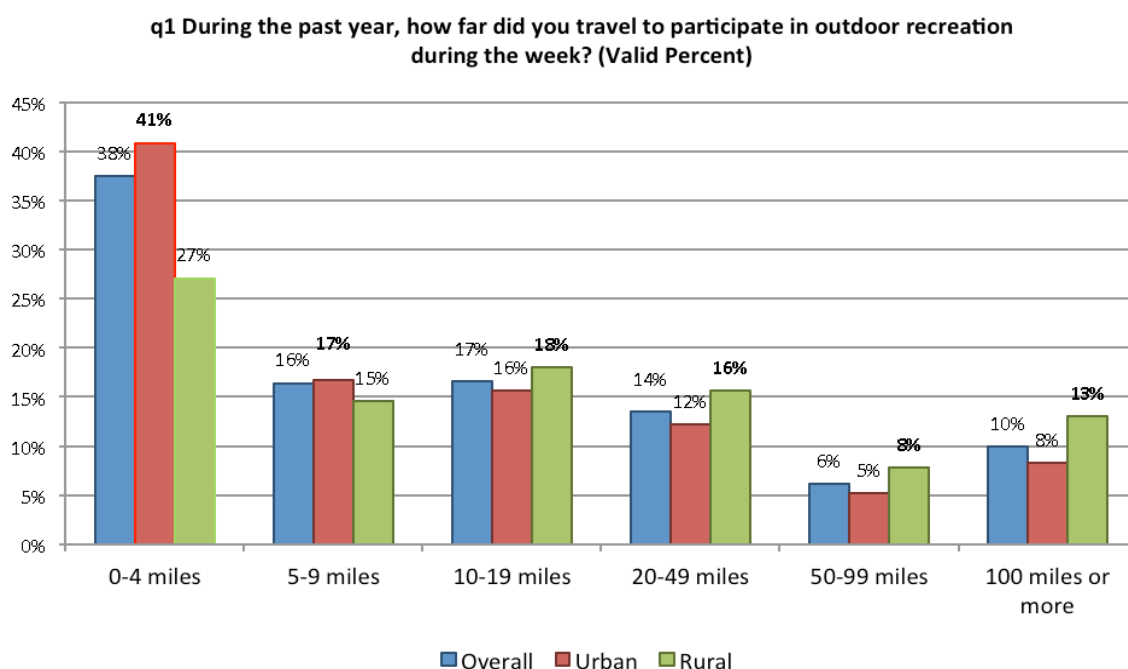
Respondents were asked how far they travel to participate in outdoor recreation during the week (Chart RO2.1a and Appendix B: q1).

- 37.5% ($n_w=282$) of Missouri residents traveled zero to four miles to participate in outdoor recreation during the week.

Distance traveled by urban Missouri residents during the week and distance traveled by rural Missouri residents during the week differ significantly.

- 41.3% ($n=157$) of urban Missouri residents traveled zero to four miles to participate in outdoor recreation compared to 28.2% ($n=104$) of rural Missouri residents (Chart RO2.2a).
-

Chart RO2.1a. Distance Traveled for Outdoor Recreation - Weekday



Research Objective 2.2 (RO2.2)

- Determine how far Missouri residents travel to participate in outdoor recreation during the weekend (i.e. Friday through Sunday).

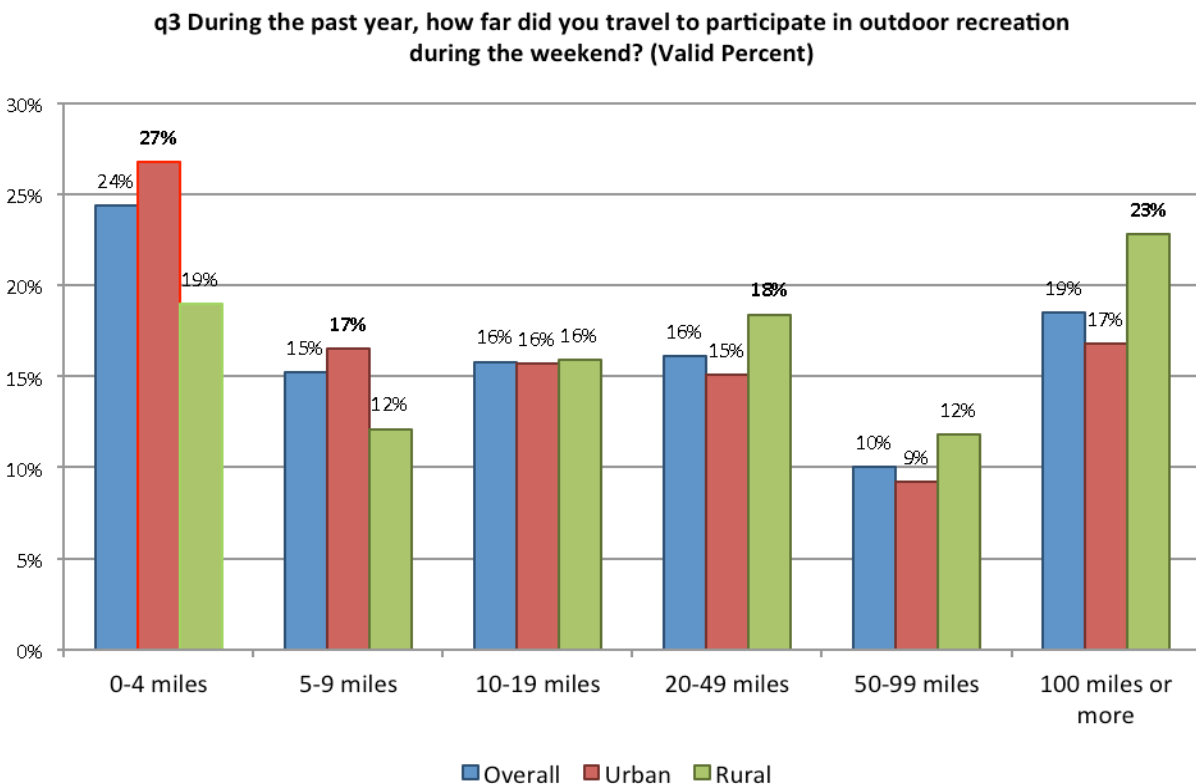
Respondents were asked how far they travel to participate in outdoor recreation during the weekend (Chart RO2.2a and Appendix B: q3).

- 24.4% ($n_w=180$) of Missouri residents traveled zero to four miles to participate in outdoor recreation during the weekend.
- 18.5% ($n_w=137$) of Missouri residents traveled 100 miles or more to participate in outdoor recreation during the weekend.

Distance traveled by urban Missouri residents during the weekend and distance traveled by rural Missouri residents during the weekend differ significantly (Chart RO2.2a).

- 26.8% ($n=99$) of urban Missouri residents travel zero to four miles to participate in outdoor recreation during the weekend.
 - 26.8% ($n=99$) of urban Missouri residents traveled zero to four miles to participate in outdoor recreation during the weekend compared to 19.0% ($n=69$) of rural Missouri residents.
- 22.8% ($n=83$) of rural Missouri residents traveled 100 miles or more to participate in outdoor recreation during the weekend.

Chart RO2.2a. Distance Traveled for Outdoor Recreation - Weekend



Research Question 3 (RQ3)

- ***How many hours per week do Missouri residents participate in outdoor recreation?***

Research Objective 3.1 (RO3.1)

- *Determine how many hours Missouri residents participate in outdoor recreation during the week (i.e. Monday through Thursday).*

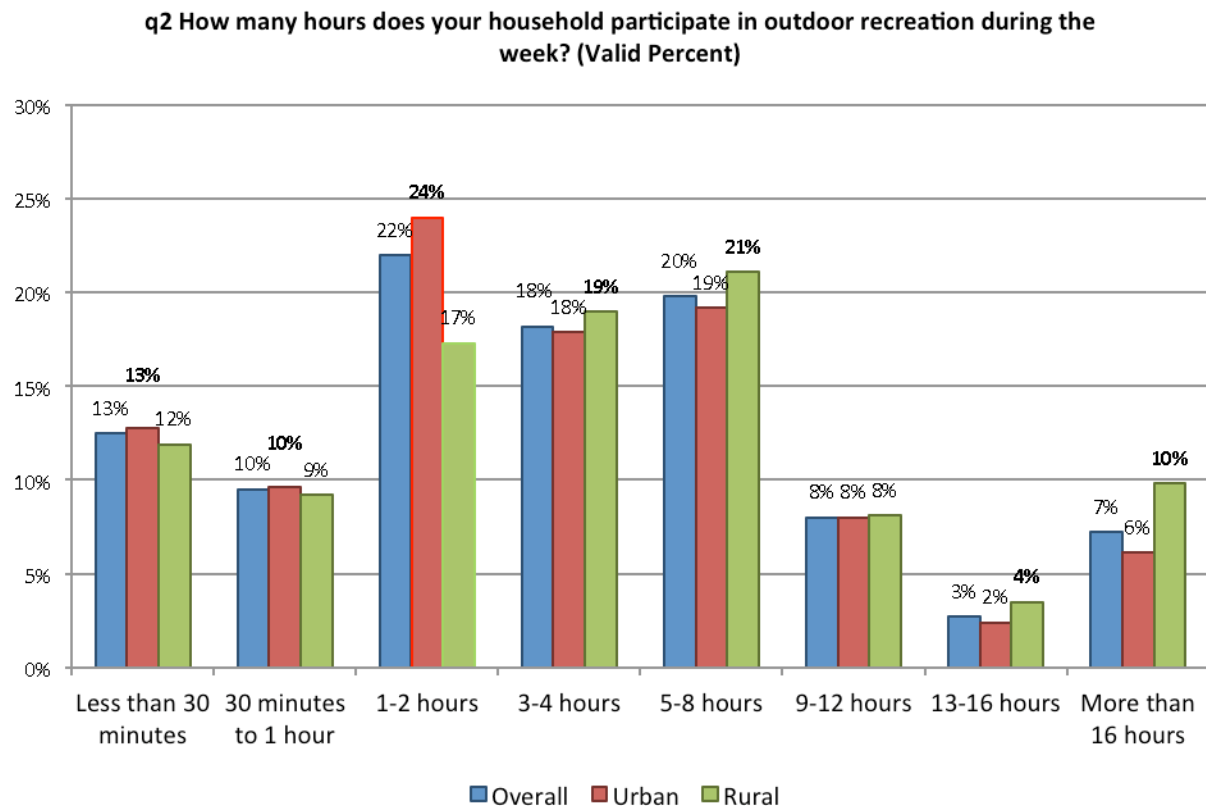
Respondents were asked how many hours their household participates in outdoor recreation during the week (Chart RO3.1a and Appendix B: q2).

- 22.0% ($n_w=164$) of Missouri residents participate in outdoor recreation between one and two hours during the week.
- 37.7% ($n_w=282$) of Missouri residents participate in outdoor recreation at least five to eight hours during the week.

Hours of participation per week among urban Missouri residents and hours of participation per week among rural Missouri residents differed significantly (Chart RO3.1a).

- 24.0% ($n=90$) of urban Missouri residents participate in outdoor recreation one to two hours during the week.
 - 35.7% ($n=134$) of urban Missouri residents participate in outdoor recreation at least five to eight hours during the week.
- 21.1% ($n=78$) of rural Missouri residents participate in outdoor recreation five to eight hours per week.
 - 17.3% ($n=63$) of urban Missouri residents participate in outdoor recreation one to two hours during the week compared to 24.0% ($n=90$) of urban Missouri residents.
 - 42.5% ($n=157$) of rural Missouri residents participate in outdoor recreation at least five to eight hours during the week.

Chart RO3.1a. Hours Spent on Outdoor Recreation – Weekday



Research Objective 3.2 (RO3.2)

- Determine how many hours Missouri residents participate in outdoor recreation during the weekend (i.e. Friday through Sunday)

Respondents were asked how many hours their household participates in outdoor recreation during the weekend (Chart RO3.2a and Appendix B: q4).

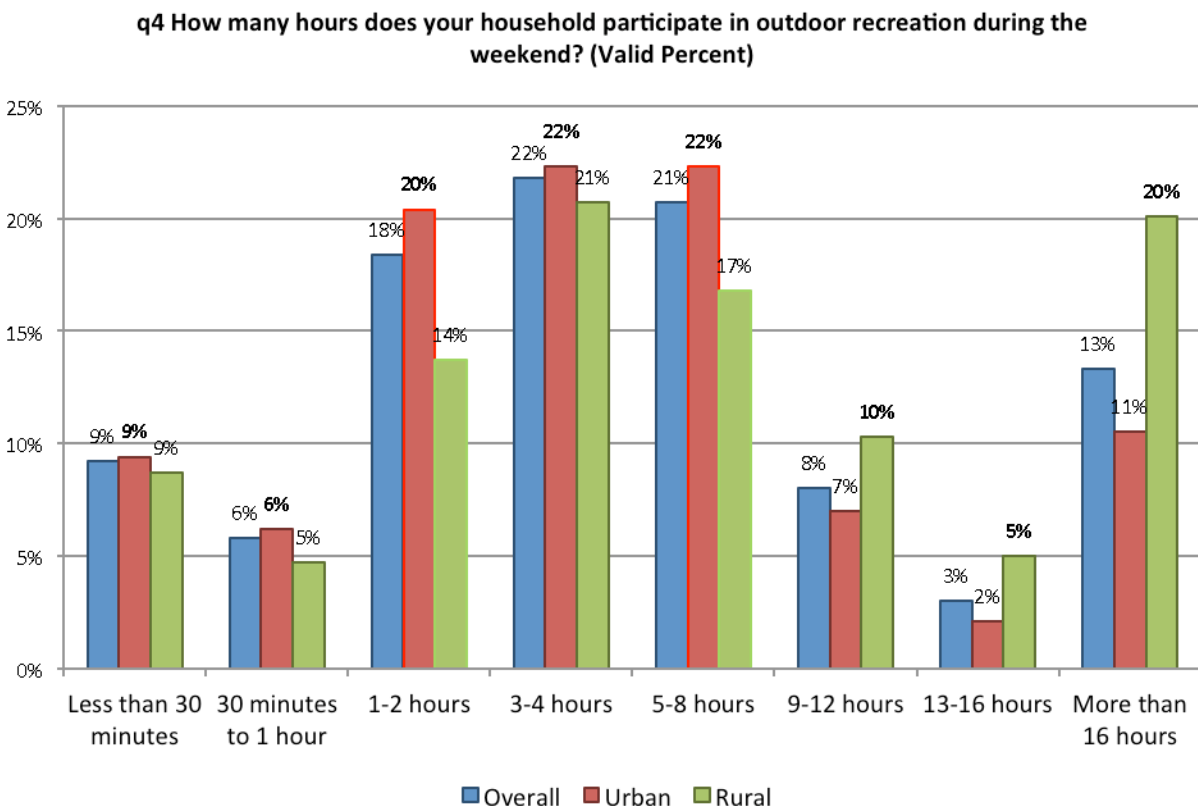
- 21.8% ($n_w=161$) of Missouri residents participate in outdoor recreation between three and four hours during the weekend.
- 45% ($n_w=331$) of Missouri residents participate in outdoor recreation at least five hours during the weekend.
- 66.8% ($n_w=492$) of Missouri residents participate in outdoor recreation at least three hours during the weekend.

Hours of participation per weekend among urban Missouri residents and hours of participation per weekend among rural Missouri residents differ significantly (Chart RO3.2a).

- 22.3% ($n=83$) of urban Missouri residents participate in outdoor recreation between three and four hours per weekend and 22.3% ($n=83$) of urban Missouri residents participate in outdoor recreation between five and eight hours on the weekend.

- 20.4% (n=76) of urban Missouri residents participate in outdoor recreation between one and two hours per weekend compared to 13.7% (n=49) of rural Missouri residents.
- 22.3% (n=83) of urban Missouri residents participate in outdoor recreation between five and eight hours per weekend compared to 16.8% (n=60) of rural Missouri residents.
- 41.9% (n=156) of urban Missouri residents participate in outdoor recreation at least five hours during the weekend.
- 64.2% (n=239) of urban Missouri residents participate in outdoor recreation at least three hours during the weekend.
- 20.7% (n=74) of rural Missouri residents participate in outdoor recreation three to four hours during the weekend.
 - 5.0% (n=18) of rural Missouri residents participate in outdoor recreation between 13 and 16 hours per weekend compared to 2.1% (n=8) of urban Missouri residents.
 - 20.1% (n=72) of rural Missouri residents participate in outdoor recreation for more than 16 hours per weekend compared to 10.5% (n=39) of urban Missouri residents.
- 52.2% (n=187) of urban Missouri residents participate in outdoor recreation at least five hours during the weekend.
- 71.5% (n=261) of urban Missouri residents participate in outdoor recreation at least three hours during the weekend.

Chart RO3.2a. Hours Spent on Outdoor Recreation – Weekend



Management Problem

- *How available is outdoor recreation in Missouri?*

Research Question 4 (RQ4)

- *How satisfied are Missouri residents with the availability of outdoor recreation activities?*

Research Objective 4.1 (RO4.1)

- *Determine satisfaction of Missouri residents with the availability of local outdoor recreation activities.*

Respondents were asked how satisfied they are with the availability of local outdoor recreation activities, using a 1 to 5 scale with 1 being “Not at all satisfied” and 5 being “Very Satisfied” (Table RO4.1a, Chart RO4.1a and Appendix B: q10_2).

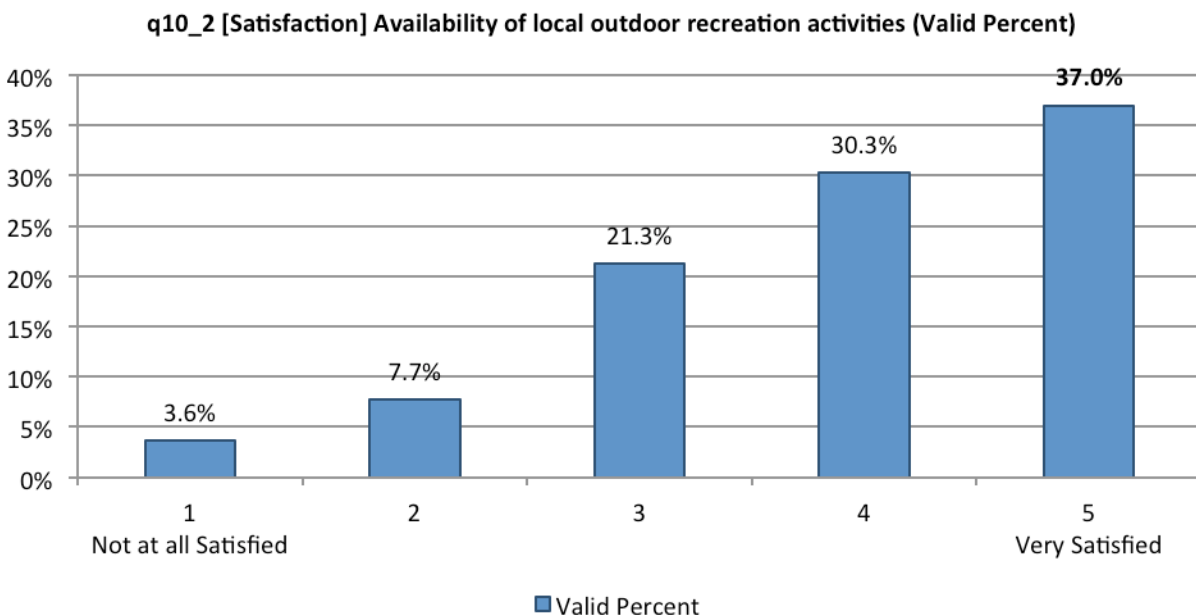
- 37.0% ($n_w=284$) of Missouri residents are very satisfied with the availability of local outdoor recreation activities.
- 95% confident that satisfaction among Missouri residents with the availability of local outdoor recreation activities is between 3.82 and 3.96 ($\bar{x}_w=3.89 \pm 0.072$).

Table RO4.1a. Descriptive Statistics (urban and rural combined and weighted)
q10_2 [Satisfaction] Availability of local outdoor recreation activities

	Frequency	Mean _w	Std. Error	Std. Dev.
q10_2 [Satisfaction] Availability of local outdoor recreation activities	768	3.89	0.037	1.018

(w) Indicates weighted score

Chart RO4.1a. Satisfaction with Availability of Local Outdoor Recreation Activities



Action Standard 4.1 (AS4.1)

- IF satisfaction with availability of local outdoor recreation activities mean score is less than 3.0 OR top box score is less than 30% THEN recommend taking action (q10_2).

✖ *No action recommended.*

Research Objective 4.2 (RO4.2)

- *Determine satisfaction of Missouri residents with the availability of organized/supervised outdoor recreation programs.*

Respondents were asked how satisfied they are with organized/supervised outdoor recreation programs, using a 1 to 5 scale with 1 being “Not at all satisfied” and 5 being “Very Satisfied” (Table RO4.2a, Chart RO4.2a and Appendix B: q10_8).

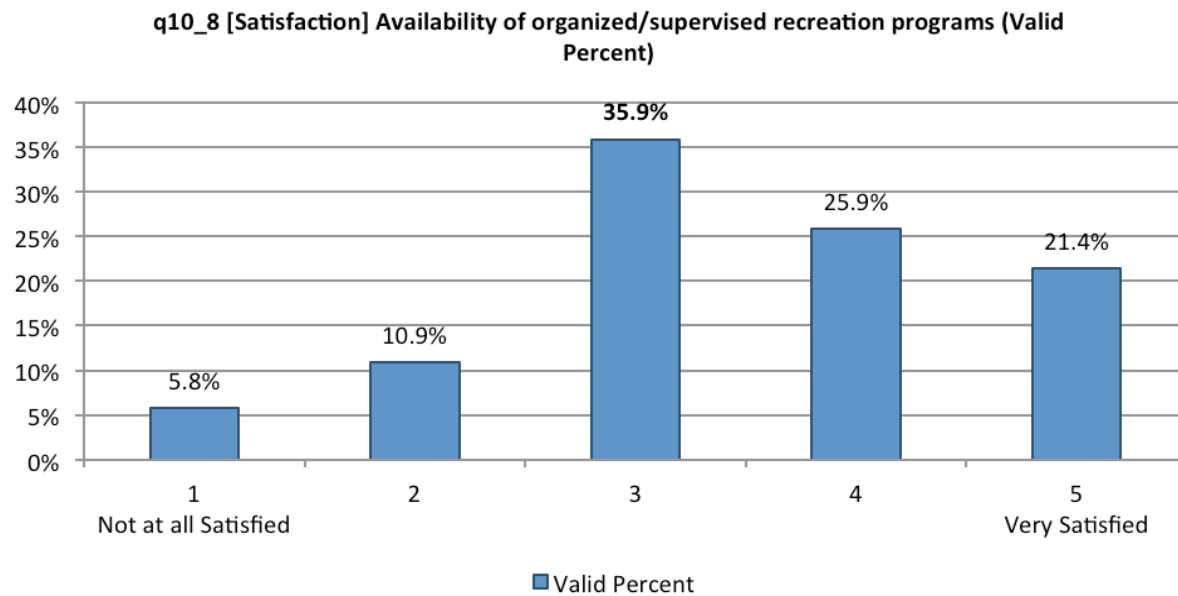
- 21.4% ($n_w=164$) of Missouri residents are very satisfied with the availability of organized/supervised outdoor recreation programs.
 - 35.9% ($n_w=276$) of respondents chose 3/5.
- 95% confident that satisfaction among Missouri residents with the availability of organized/supervised outdoor recreation activities is between 3.62 and 3.54 ($\bar{x}_w=3.46 \pm 0.078$).

Table RO4.2a. Descriptive Statistics (urban and rural combined and weighted)
q10_8 [Satisfaction] Availability of organized/supervised recreation programs

	Frequency	Mean _w	Std. Error	Std. Dev.
q10_8 [Satisfaction] Availability of organized/supervised recreation programs	768	3.46	0.04	1.116

(w) Indicates weighted score

Chart RO4.2a. Satisfaction with Availability of Organized Programs



Urban and rural populations were compared and there are no significant differences between the two populations.

Action Standard 4.2 (AS4.2)

- IF satisfaction with availability of organized/supervised outdoor recreation programs mean score is less than 3.5 OR top box score is less than 30% THEN recommend taking action (q10_8).

✓ *Recommend taking action on the following:*

- Satisfaction with availability of organized recreation programs mean score is less than 3.5 and top box is less than 30%.

Research Question 5 (RQ5)

- *What types of outdoor recreation activities do Missouri residents want to see more of in their local area?*

Research Objective 5.1 (RO5.1)

- *Determine what types of outdoor recreation activities Missouri residents want to see more of in their local area.*

Respondents who did not indicate “Very satisfied” with either the availability or the variety of outdoor recreation activities in their local area were asked what outdoor recreation activities they would like to see more of in their local area (q11). Open ended responses were coded and tallied for all responses mentioned in at least 1% of cases (Table RO5.1a, Chart RO5.1a and Appendix B: \$q11_c).

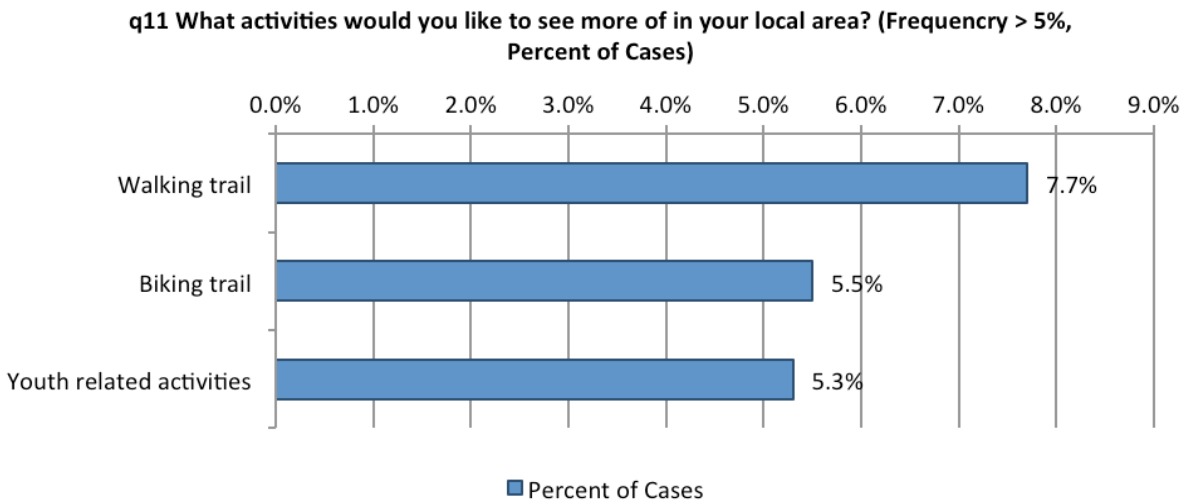
Table RO5.1a Frequencies (coded open end* – urban and rural combined)

\$q11_c what outdoor recreation activities would you like to see more of in your local area?

		Responses		Percent of Cases
		N _w	Percent	
Activities you like to see more of?(a)	Walking trail	59	6.30%	7.70%
	Biking trail	42	4.50%	5.50%
	Youth related activities	41	4.40%	5.30%
	Water park/pool	35	3.70%	4.60%
	Camping	18	1.90%	2.30%
	Baseball/softball	16	1.70%	2.10%
	Walking/hiking	16	1.70%	2.10%
	Wildlife preserves/wildlife watching/nature	15	1.60%	2.00%
	Fishing	14	1.50%	1.80%
	Swimming	14	1.50%	1.80%
	Boating/canoeing/docks	13	1.40%	1.70%
	Concerts/festivals/fairs	13	1.40%	1.70%
	Parks	12	1.30%	1.60%
	Lakes/rivers	12	1.30%	1.60%
	Archery/bows	11	1.20%	1.40%
	Horseback riding/equestrian	11	1.20%	1.40%
	Tennis/tennis courts	11	1.20%	1.40%
	Biking/motor biking	10	1.10%	1.30%
	Dog parks	10	1.10%	1.30%
	Rec centers/community center	9	1.00%	1.20%
	Golf	8	0.80%	1.00%
	Soccer	8	0.80%	1.00%
	Hunting	8	0.80%	1.00%
a Group				

(w) Indicates weighted score; *Raw open ends available in Appendix C: \$q11

Chart RO5.1a. More Activities Desired



Action Standard 5.1 (AS5.1)

- IF more than 8.85% (n=68) of respondents in the total sample (n=768) OR more than 17.7% (n=68) of respondents from either the rural or urban samples scored less than a 5/5 on satisfaction with availability of local outdoor recreation activities OR IF more than 8.85% (n=68) of respondents in the total sample (n=768) OR more than 17.7% (n=68) of respondents from either the rural or urban samples scored less than a 5/5 on satisfaction with availability of organized/supervised outdoor recreation programs AND more than 5% mentioned an activity when asked what types of activities they would like to see more of in their area THEN recommend taking action (q10_2, q10_8 and q11).

✓ *Recommend taking action on the following:*

- Walking trails (7.7%, n=59)
- Biking trails (5.5%, n=42)
- Youth related activities (5.3%, n=41)

Research Question 6 (RQ6)

- ***How available are outdoor recreation facilities in Missouri?***

Research Objective 6.1 (RO6.1)

- *Determine proximity of Missouri residents to the closest local outdoor recreation facility.*

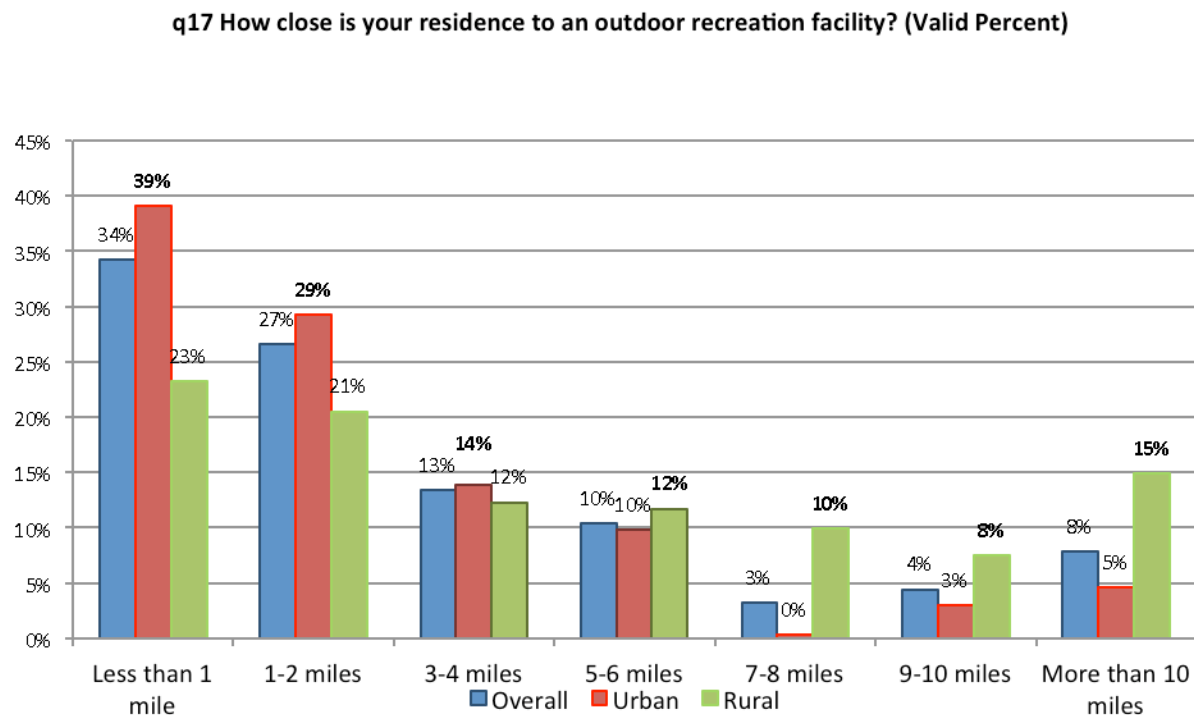
Respondents were asked how close their residence is to an outdoor recreation facility (Chart RO6.1a and Appendix B: q17).

- 34.2% (n_w=252) of Missouri residents live less than one mile from an outdoor recreation facility.
- 60.8% (n_w=448) of Missouri residents live within 2 miles of an outdoor recreation facility.

Distance to a recreation facility differs significantly between urban and rural residents (Chart RO6.1a).

- 39.1% (n=143) of urban Missouri residents live less than one mile from an outdoor recreation facility.
 - 39.1% (n=143) of urban Missouri residents live within one mile of an outdoor recreation facility compared to 23.2% (n=87) of rural Missouri residents.
 - 29.2% (n=107) of urban Missouri residents live one to two miles from an outdoor recreation facility compared to 20.5% (n=77) of rural Missouri residents.
- 68.3% (n=250) of urban Missouri residents live less than two miles from an outdoor recreation facility.
- 23.2% (n=87) of rural Missouri residents live less than one mile from an outdoor recreation facility.
 - 9.9% (n=37) of rural Missouri residents live seven to eight miles from an outdoor recreation facility compared to 0.3% (n=1) of urban Missouri residents.
 - 7.5% (n=28) of rural Missouri residents live nine to ten miles from an outdoor recreation facility compared to 3.0% (n=11) of urban Missouri residents.
 - 14.9% (n=56) of rural Missouri residents live more than ten miles from an outdoor recreation facility compared to 4.6% (n=17) of urban Missouri residents.
- 43.7% (n=164) of rural Missouri residents live within two miles of an outdoor recreation facility.

Chart RO6.1a. Distance to Nearest Facility



Research Objective 6.2 (RO6.2)

- *Determine availability of outdoor recreation facilities among Missouri residents.*

Respondents were asked how often their household uses different types of outdoor recreation facilities. Respondents were given the option of choosing unavailable if that type of facility is not available (Table RO6.2a, Chart RO6.2a and Appendix B: q13_1 through q13_34).

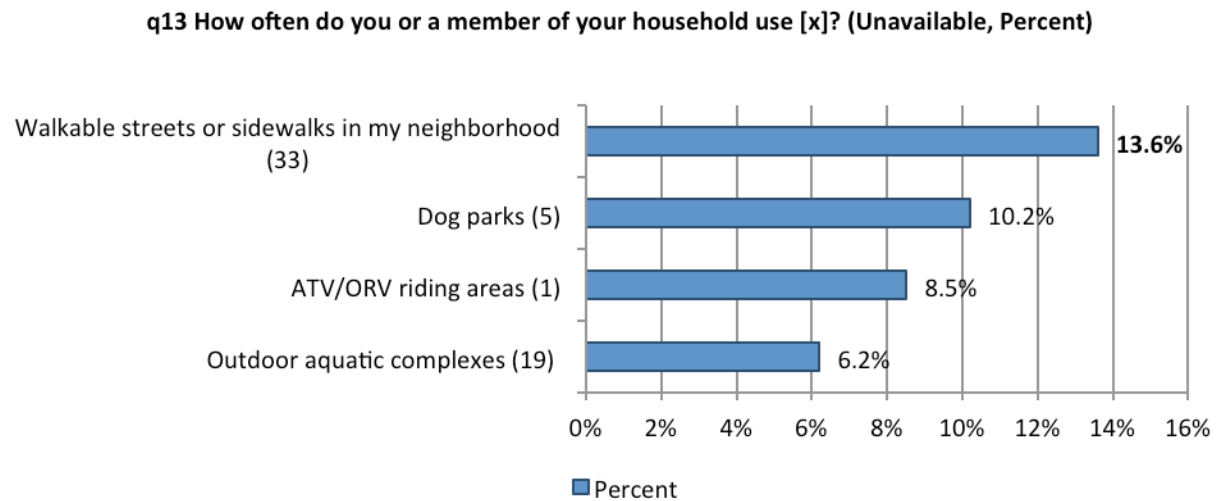
- 13.6% ($n_w=105$) of Missouri residents do not have walkable streets or sidewalks available to their household.
- 10.2% ($n_w=78$) of Missouri residents do not have dog parks available to their household.
- 8.5% ($n_w=65$) of Missouri residents do not have ATV/ORV riding areas available to their household.
- 6.2% ($n_w=48$) of Missouri residents do not have outdoor aquatic complexes available to their household.

**Table RO6.2a. Frequencies (urban and rural combined and weighted)
q13 How often do you or a member of your household use [X]? (facility is unavailable)**

Facility Type		Frequency _w	Percent
Valid	Walkable streets or sidewalks in my neighborhood (33)	105	13.60%
	Dog parks (5)	78	10.20%
	ATV/ORV riding areas (1)	65	8.50%
	Outdoor aquatic complexes (19)	48	6.20%
	National or state forests (16)	35	4.60%
	Gardens (9)	34	4.50%
	Boating and water sport access sites (3)	32	4.20%
	Frisbee/disk golf courses (8)	32	4.20%
	National parks or monuments (17)	32	4.10%
	Sports complexes (27)	28	3.60%
	Nature parks/areas (18)	27	3.60%
	Target shooting sites (29)	27	3.50%
	Lakes (13)	25	3.30%
	Skate parks (25)	24	3.20%
	Camping sites (4)	23	3.00%
	Multi-use fields (15)	23	3.00%
	Outdoor swimming pools (21)	23	3.00%
	Volleyball courts (32)	22	2.90%
	Historic/education sites (11)	21	2.80%
	Hunting sites (12)	20	2.60%
	Trails (31)	20	2.60%
	Wildlife areas (34)	20	2.70%
	Football fields (7)	19	2.40%
	Tennis courts (30)	19	2.50%
	State parks (28)	18	2.40%
	Baseball/softball fields (2)	17	2.20%
	Golf courses (10)	16	2.10%
	Picnic areas (22)	14	1.80%
	Soccer fields (26)	13	1.70%
	Outdoor basketball courts (20)	12	1.60%
	Rivers (24)	12	1.50%
	Local parks (14)	10	1.30%
	Playgrounds (23)	10	1.30%
	Fishing sites (6)	9	1.10%

(w) Indicates weighted score

Chart RO6.2a. Frequency of Facility Use

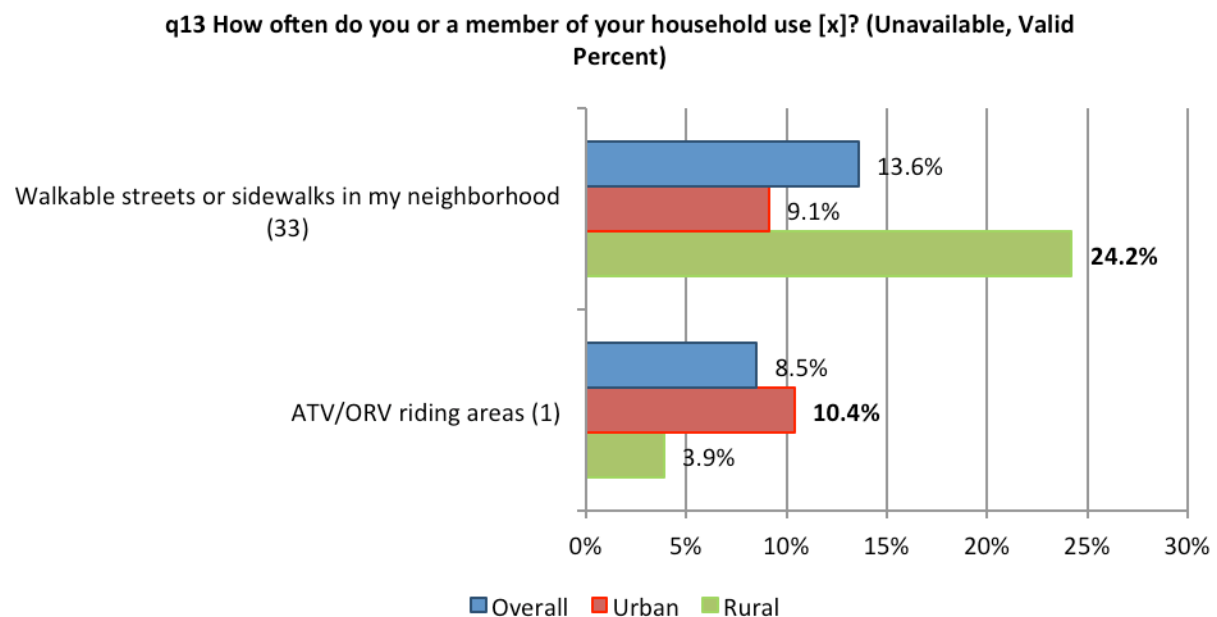


Facility availability differs significantly between urban and rural residents.

Responses were tallied by region (urban vs. rural) and sorted from high to low (Chart RO2.6b).

- Walkable streets or sidewalks are more available to urban Missouri residents (n=35, 9.1% unavailable) than rural Missouri residents (n=93, 19.5% unavailable).
- ATV/ORV riding areas are more available to rural Missouri residents (n=15, 3.9% unavailable) than rural Missouri residents (n=40, 10.4% unavailable).

Chart RO6.2b. Frequency of Facility Use – Urban vs. Rural



Action Standard 6.2 (AS6.2)

- IF more than 5% of respondents do not have a specific type of facility available THEN recommend taking action (q13_1 through q13_34).

✓ *Recommend taking action on the following:*

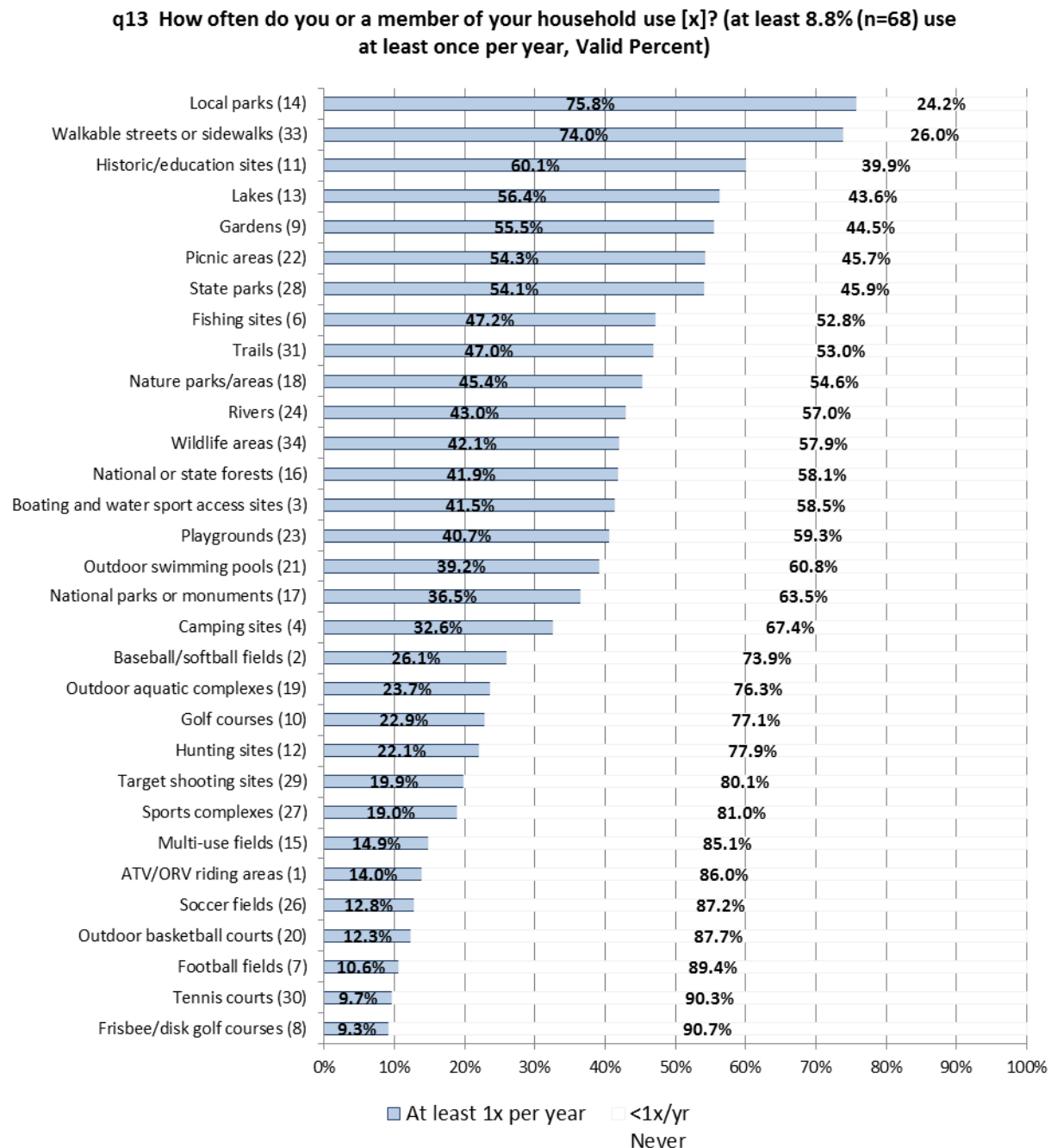
- Walkable streets and sidewalks in my neighborhood (13.6% unavailable, n_w=105).
 - Less available to rural residents (24.2% unavailable, n=93) compared to urban residents (9.1% unavailable, n=35).
- Dog Parks (10.2%, n_w=78).
- ATV/ORV riding areas (8.5%, n_w=65).
 - Less available to urban residents (10.4% unavailable, n=40) compared to rural residents (3.9% unavailable, n=15).
- Outdoor aquatic complexes (6.2%, n_w=48).

Research Objective 6.3 (RO6.3)

- Determine supply of local outdoor recreation facilities among Missouri residents.

Respondents who use a facility type at least once per year or more were asked to rate the local supply in their area. Facilities used at least once per year by more than 8.8% (n=68) of respondents were tallied (Chart RO6.3a and Appendix B: q13_1 through q13_34).

Chart RO6.3a. Missourians Who Use Facility At Least 1/x a Year



Respondents were sorted by about right percentages based on the total percent who indicated about right to q14 (Chart RO6.3b); and based on the percent who indicated about right to q14 among those who use the facility at least once per year (Chart RO6.3c). All responses to q14 can be found in Appendix B: q14_1 through q14_34.

Chart RO6.3b. Missourians Who Rate Facility Supply About Right

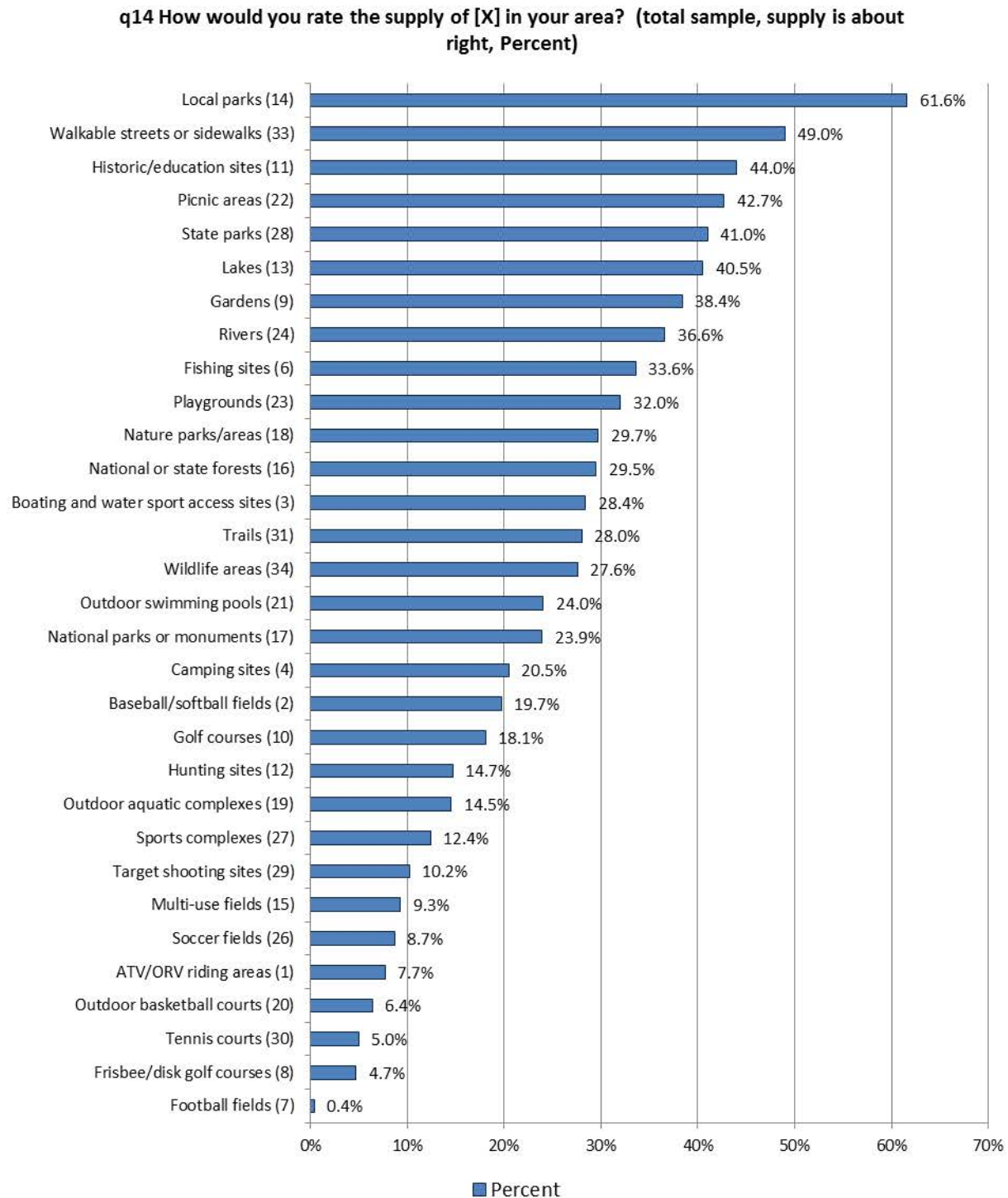
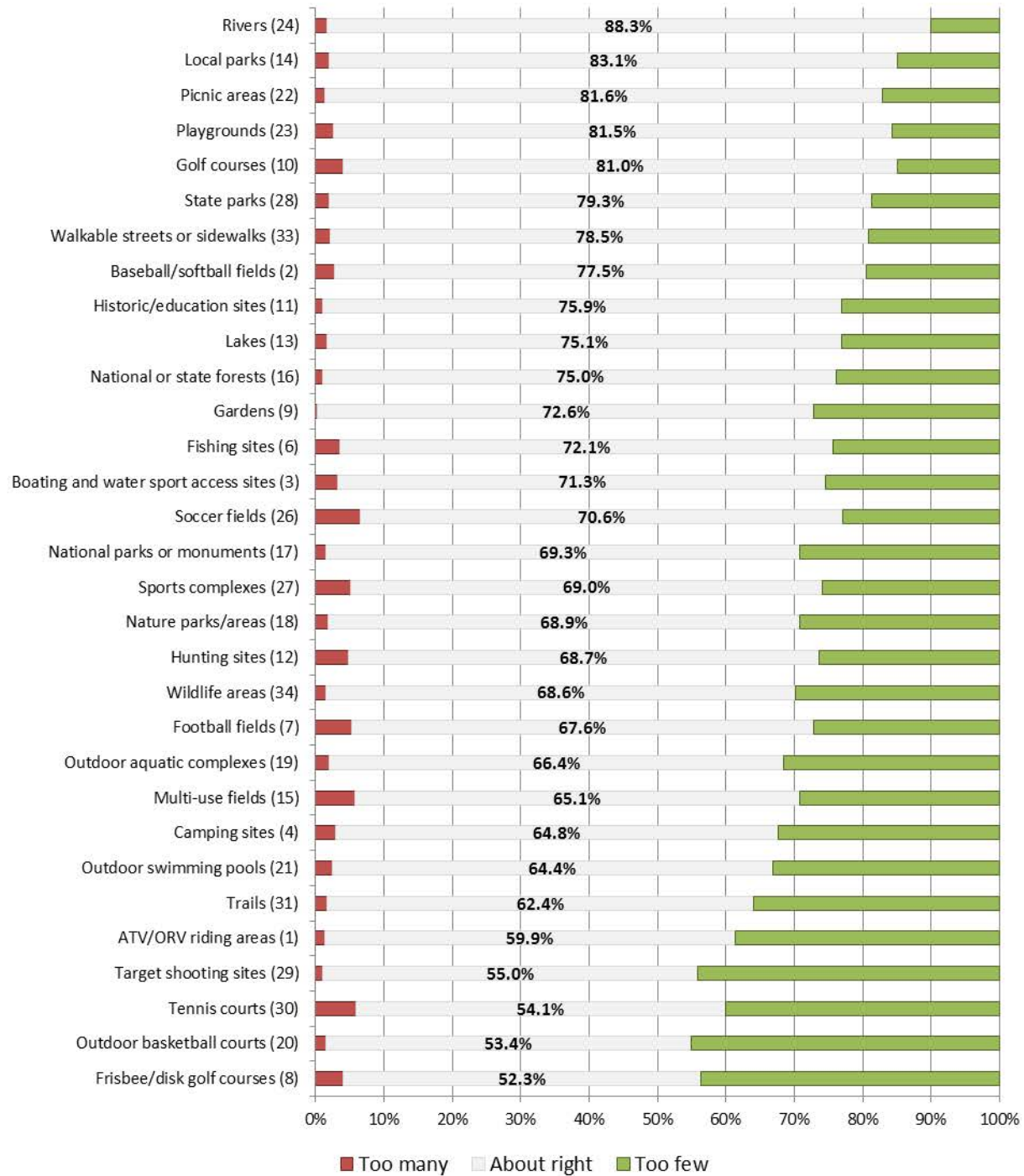


Chart RO6.3c. Missourians Using Facility At Least 1x/Year Rate Facility Supply

q14 How would you rate the supply of [x] in your area? (at least 8.8% (n=68) use at least once per year, supply is about about, percent



Way too few and too few percentages were combined and tallied, then sorted by percentage of total sample (Chart RO6.3d) and percentage of those who use at least once per year (Chart RO6.3e, about right percent is collapsed in order to emphasize too few and too many percentages).

Chart RO6.3d. Missourians Who Rate Facility Supply Inadequate

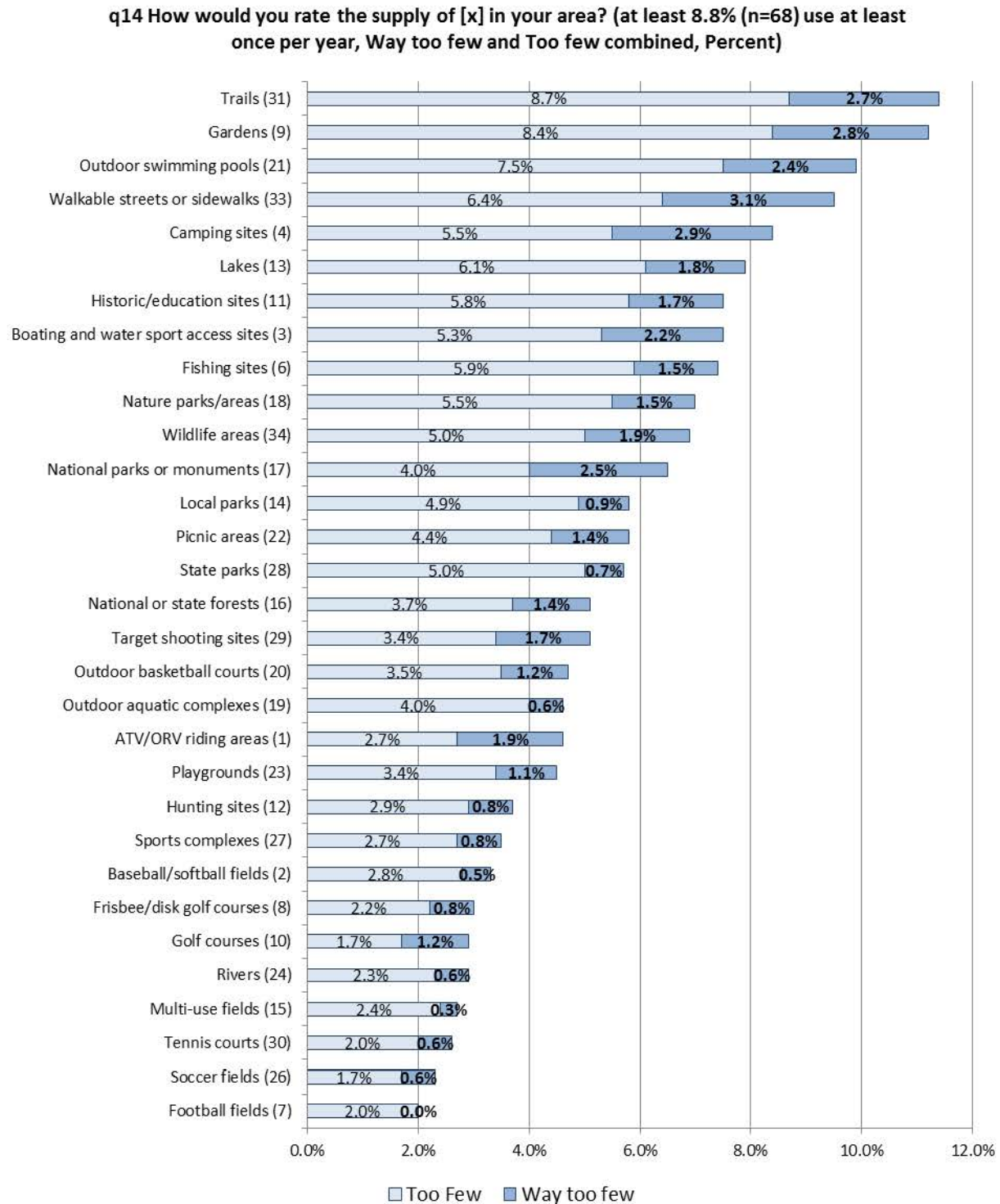
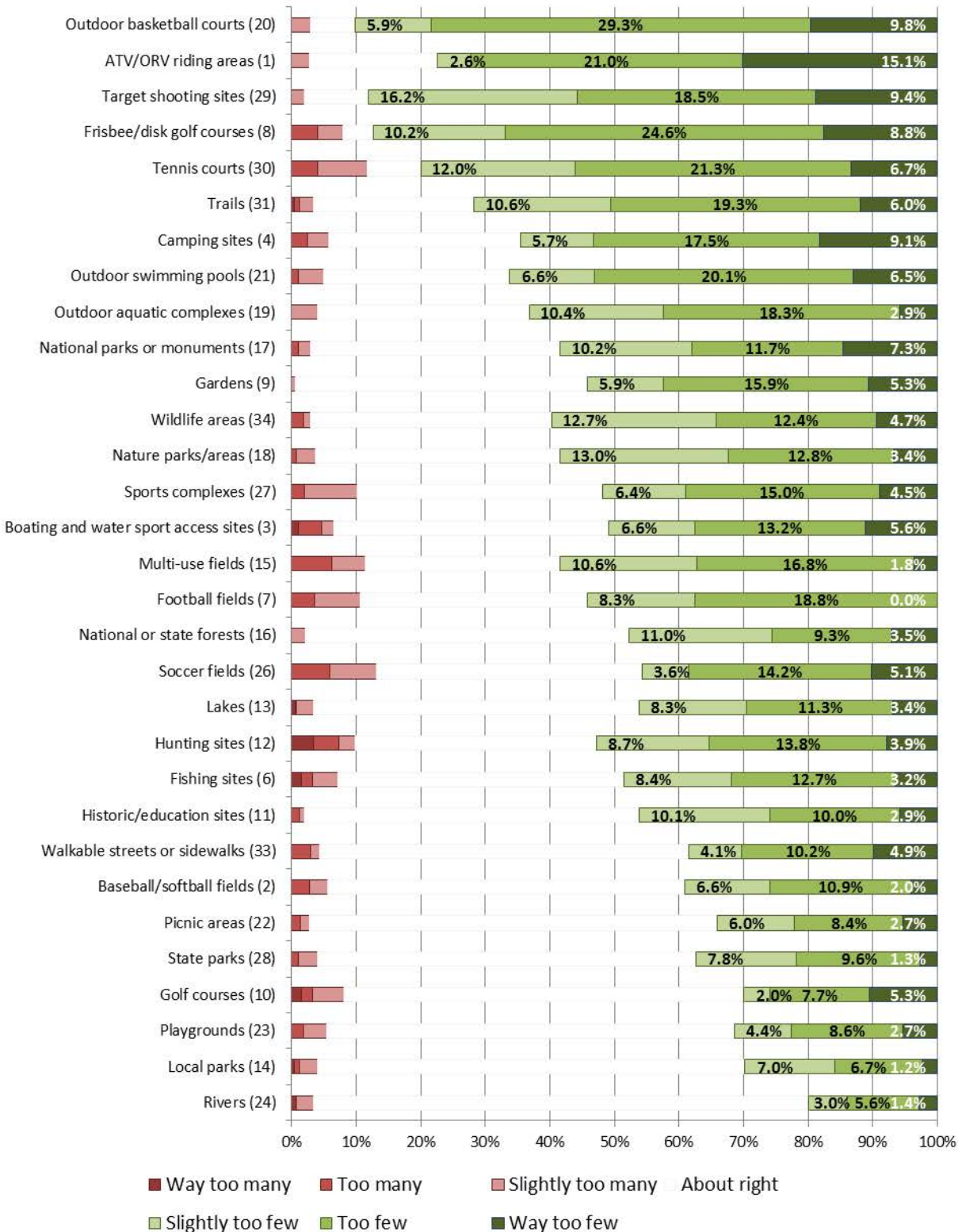


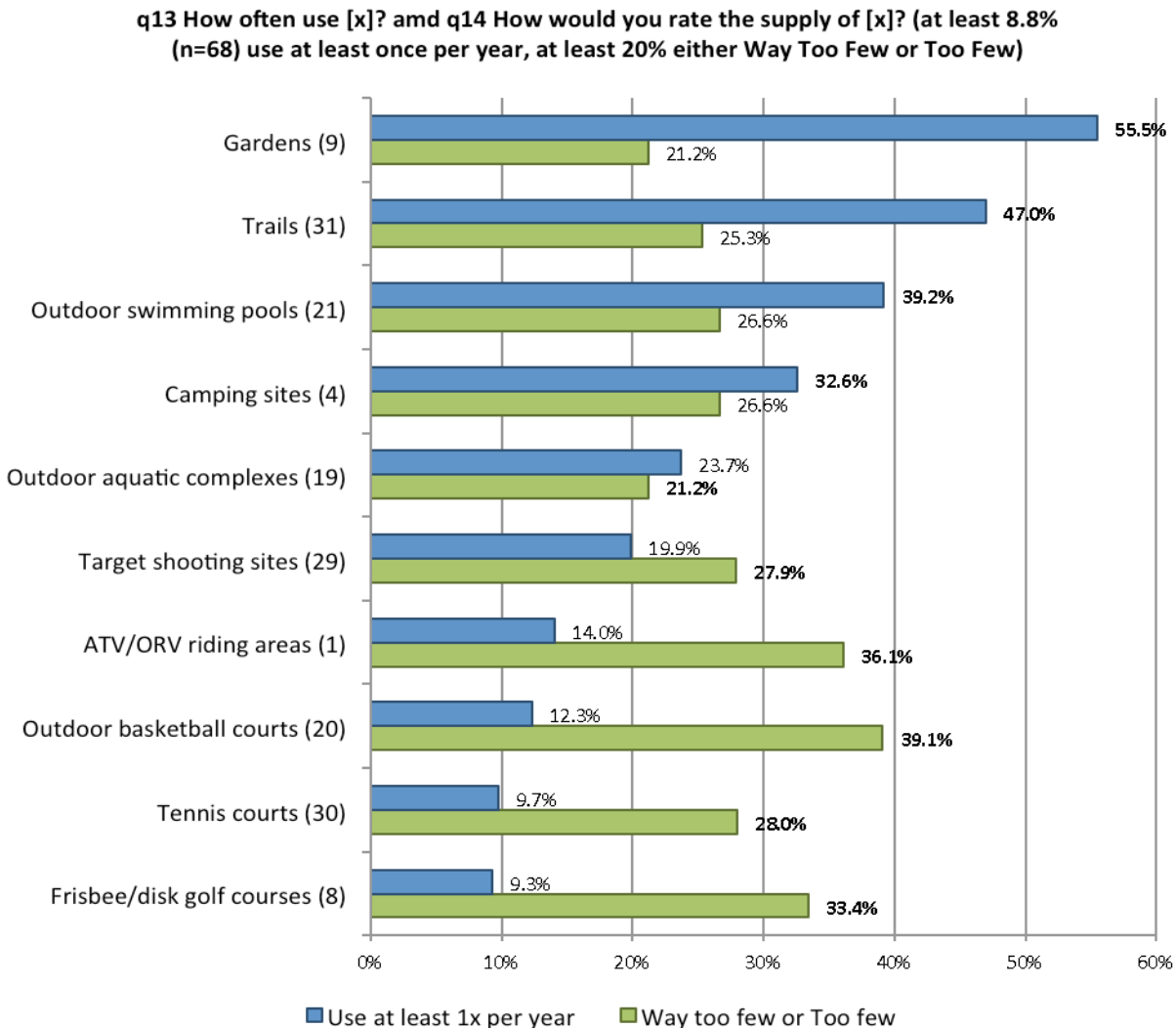
Chart RO6.3e. Missourians Using Facility At Least 1x/Year Rate Supply

q14 How would you rate the supply of [x] in your area? (at least 8.8% (n=68) use at least once per year, percent



Way too few and too few responses were combined for respondents that use a facility at least once per year (Chart RO6.3f).

Chart RO6.3f. Missourians Using Facility At Least 1x/Year Who Rate Supply Inadequate



Action Standard 6.3 (AS6.3)

- IF more than 8.85% (n=68) of respondents in the total sample (n=768) OR more than 17.7% (n=68) of respondents from either the rural or urban samples use a facility type at least once a year AND more than 20% indicate supply of a facility type is either too few OR way too few THEN recommend taking action (q13_1 through q13_34 and q14_1 through q14_34).

✓ *Recommend taking action on the following:*

- Among the 55.5% (n_w=406) of Missouri residents that use gardens at least once per year, 21.2% (n_w=86) indicated supply was either way too few or too few.

- Among the 47.0% ($n_w=345$) of Missouri residents that use trails at least once per year, 25.3% ($n_w=81$) indicated supply was either way too few or too few.
- Among the 39.2% ($n_w=286$) of Missouri residents that use outdoor swimming pools at least once per year, 26.6% ($n_w=77$) indicated supply was either way too few or too few.
- Among the 32.6% ($n_w=243$) of Missouri residents that use camping sites at least once per year, 26.6% ($n_w=65$) indicated supply was either way too few or too few.
- Among the 23.7% ($n_w=167$) of Missouri residents that use outdoor aquatic complexes at least once per year, 21.2% ($n_w=36$) indicated supply was either way too few or too few.
- Among the 19.9% ($n_w=145$) of Missouri residents that use target shooting sites at least once per year, 27.9% ($n_w=39$) indicated supply was either way too few or too few.
- Among the 14.0% ($n_w=99$) of Missouri residents that use ATV/ORV riding areas at least once per year, 36.1% ($n_w=36$) indicated supply was either way too few or too few.
- Among the 12.3% ($n_w=91$) of Missouri residents that use outdoor basketball courts at least once per year, 39.1% ($n_w=36$) indicated supply was either way too few or too few.
- Among the 9.7% ($n_w=72$) of Missouri residents that use tennis courts at least once per year, 28.0% ($n_w=20$) indicated supply was either way too few or too few.
- Among the 9.3% ($n_w=68$) of Missouri residents that use Frisbee/disk golf courses at least once per year, 34.4% ($n_w=23$) indicated supply was either way too few or too few.

Research Question 7 (RQ7)

- **How likely are Missouri residents to use currently unavailable facilities if they were made available?**

Research Objective (RO7.1)

- *Determine the likelihood of Missouri residents to use currently unavailable facilities if they were made available.*

Respondents who do have a facility type in their local area were asked how likely they would be to use one if it were available (Table RO7.1a, Chart RO7.1a, Table RO7.1b, Chart RO7.1b and Appendix B: q15).

- 90% confident that likelihood to use walkable streets and sidewalks among Missouri residents is between 3.25 and 3.79 ($\bar{x}_w = 3.52 \pm 0.271$).
- 90% confident that likelihood to use dog parks among Missouri residents is between 2.348 and 3.01 ($\bar{x}_w = 2.68 \pm 0.332$).

Table RO7.1a. Descriptive Statistics (urban and rural combined and weighted) q15 Assuming [x] was available, how likely would you or a member of your household be to use [x]?					
	Frequency _w	Percent	Mean _w	Std. Error	Std. Dev
q15_33 Walkable streets or sidewalks in my neighborhood (likelihood to use)	150	13.60%	3.52	0.165	1.691

(_w) Indicates weighted score

Chart RO7.1a. Likely to Use if Available – Walkable Streets and Sidewalks

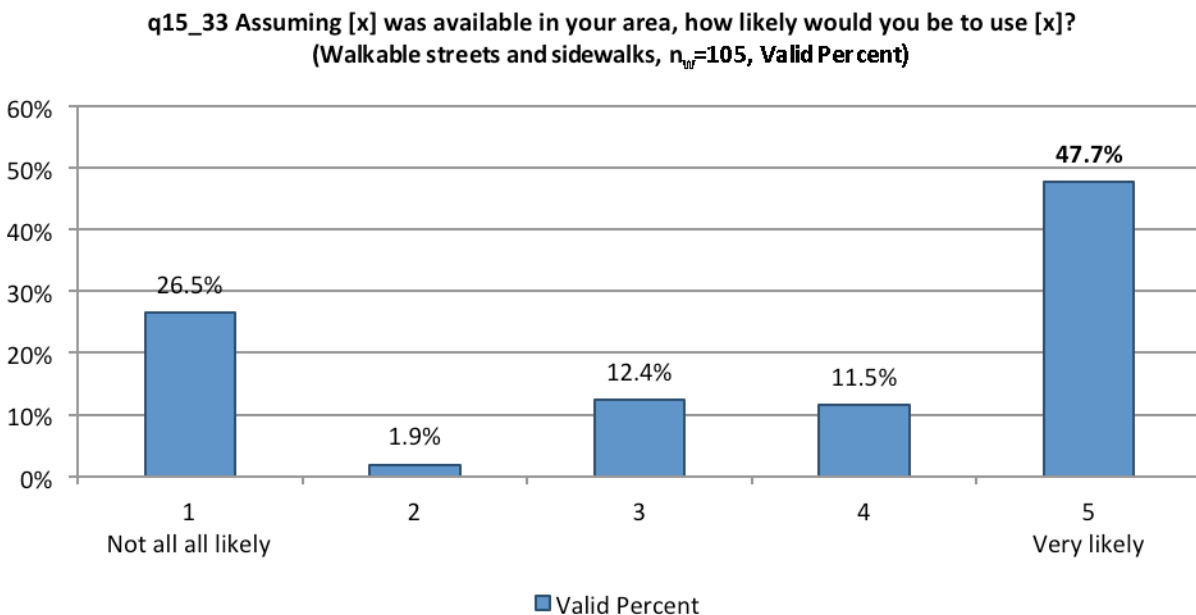


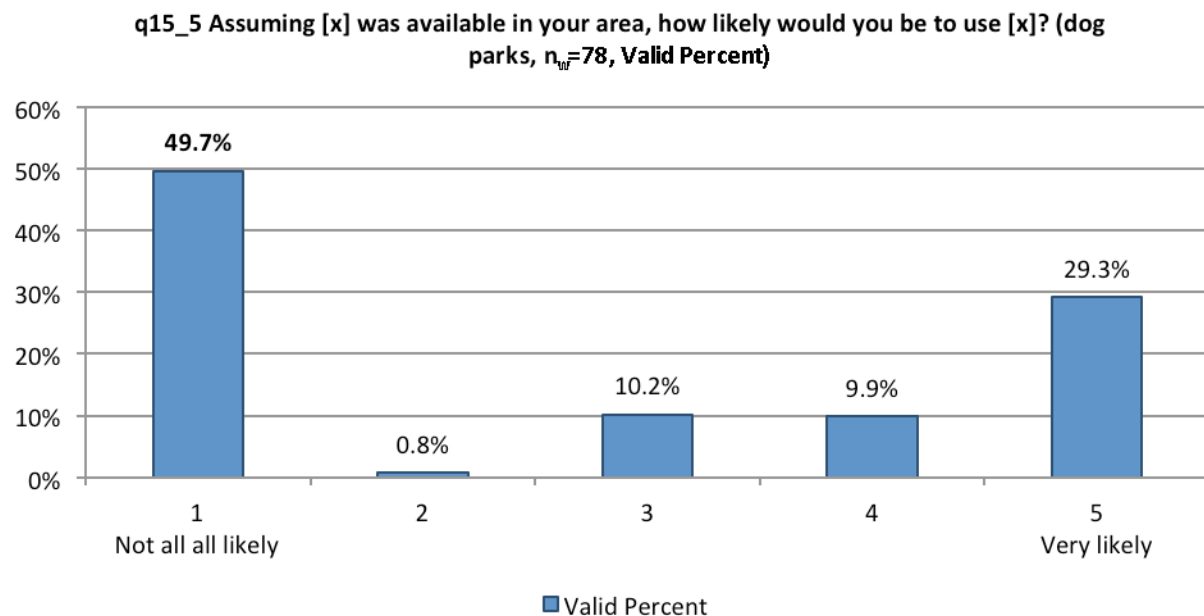
Table RO7.1b. Descriptive Statistics (urban and rural combined and weighted)

q15 Assuming [x] was available, how likely would you or a member of your household be to use [x]?

	Frequency _w	Percent	Mean _w	Std. Error	Std. Dev
q15_5 Dog parks (likelihood to use)	74	10.20%	2.68	0.202	1.792

(w) Indicates weighted score

Chart RO7.1b. Likely to Use if Available – Dog Parks



Action Standard 7.1 (AS7.1)

- IF more than 8.85% (n=96) of respondents in the total sample (n=768) OR more than 17.7% (n=96) of respondents from either the rural or urban samples do not have a facility type available AND likelihood to use the facility if it were available mean score is above 3.5 THEN recommend taking action (q13_1 through q13_34 and q15_1 through q15_34).

✓ *Recommend taking action on the following:*

- Walkable streets and sidewalks in my neighborhood are unavailable to 13.6% (n_w=105) of Missouri residents and likelihood to use if available mean score is greater than 3.50.

Research Question 8 (RQ8)

- ***How satisfied are Missouri residents with the availability of outdoor recreation facilities?***

Research Objective 8.1 (RO8.1)

- *Determine satisfaction of Missouri residents with the number of outdoor recreation facilities.*

Respondents were asked how satisfied they are with the number of outdoor recreation facilities in their local area, using a 1 to 5 scale with 1 being “Not at all satisfied” and 5 being “Very Satisfied” (Table RO8.1a, Chart RO8.1a and Appendix B: q21).

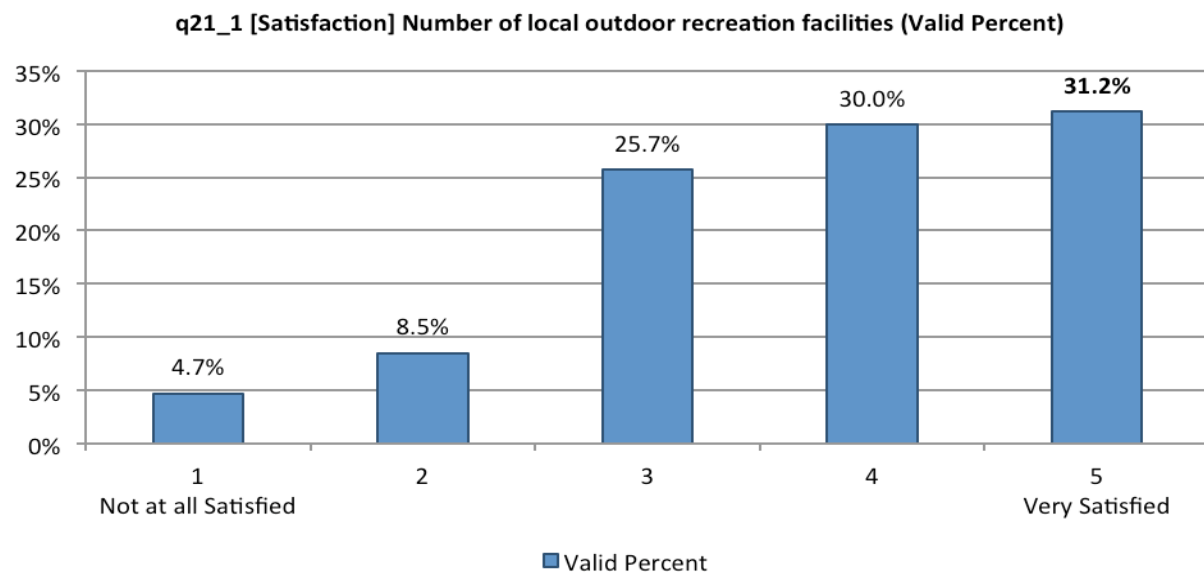
- 31.2% ($n_w=234$) of Missouri residents are very satisfied with the number of local outdoor recreation facilities.
- 95% confident that satisfaction among Missouri residents with the number of local outdoor recreation facilities is between 3.67 and 3.83 ($\bar{x}_w=3.75 \pm .080$).

Table RO8.1a. Descriptive Statistics (urban and rural combined and weighted)
q21_1 [Satisfaction] Number of local outdoor recreation facilities.

	Frequency	Mean _w	Std. Error	Std. Dev.
q21_1 [Satisfaction] Number of local outdoor recreation facilities	751	3.75	0.041	1.124

(w) Indicates weighted score

Chart RO8.1a. Satisfaction with Number of Facilities



Action Standard 8.1 (AS8.1)

- IF satisfaction with the number of local outdoor recreation facilities mean is less than 3.5 OR IF top box score is less than 30% THEN recommend taking action (q21_1).

✖ *No action recommended.*

Research Objective 8.2 (RO8.2)

- Determine satisfaction of Missouri residents with the availability of outdoor recreation facilities.

Respondents were asked how satisfied they are with the availability of outdoor recreation facilities in their local area, using a 1 to 5 scale with 1 being “Not at all satisfied” and 5 being “Very Satisfied”. (Table RO8.2a, Chart RO8.2a and Appendix B: q21).

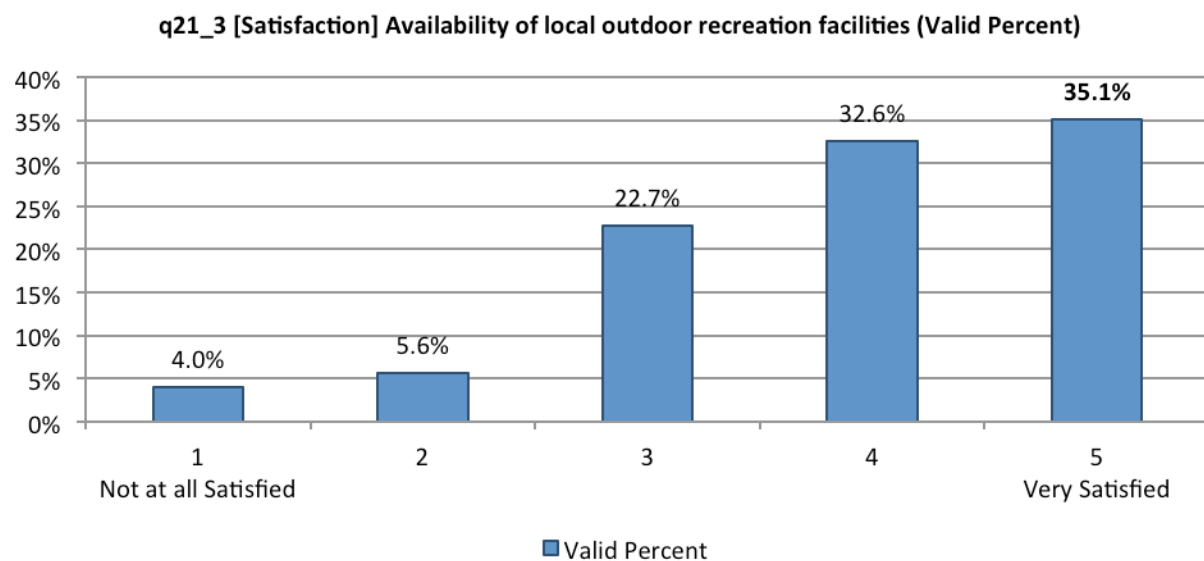
- 35.1% ($n_w=264$) of Missouri residents are very satisfied with the availability of local outdoor recreation facilities.
- 95% confident that satisfaction with the availability of local outdoor recreation facilities among Missouri residents is between 3.81 and 3.97 ($\bar{x}_w = 3.89 \pm .076$).

Table RO8.2a. Descriptive Statistics (urban and rural combined and weighted)
q21_3 [Satisfaction] Availability of local outdoor recreation facilities.

	Frequency	Mean _w	Std. Error	Std. Dev
q21_3 [Satisfaction] Availability of local outdoor recreation facilities.	761	3.89	0.039	1.074

(w) Indicates weighted score

Chart RO8.2a. Satisfaction with Availability of Facilities



Action Standard 8.2 (AS8.2)

- IF satisfaction with availability of outdoor recreation facilities mean is less than 3.5 OR top box score is less than 30% THEN recommend taking action (q21_3).

✖ No action recommended.

Research Question 9 (RQ9)

- *What types of outdoor recreation facilities do Missouri residents want to see more of in their local area?*

Research Objective 9.1 (RO9.1)

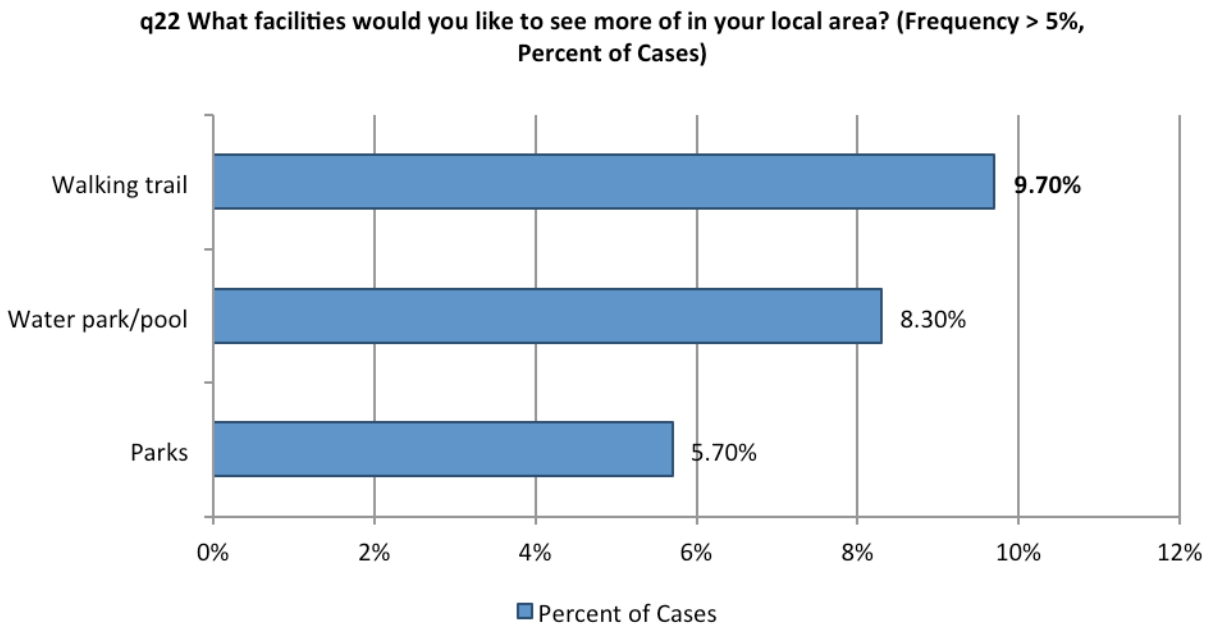
- *Determine what types of outdoor recreation facilities Missouri residents want to see more of in their local area.*

Respondents that did not indicate “Very satisfied” with either the number or the availability of outdoor recreation facilities in their local area were asked what outdoor recreation facilities they would like to see more of in their local area (q22). Open ended responses were coded and tallied for all responses mentioned in at least 1% of cases (Table RO9.1a, Chart RO9.1a, and Appendix B: \$q22_c).

Table RO9.1a Frequencies (coded open end* – urban and rural combined)				
Sq22_c what outdoor recreation facilities would you like to see more of in your local area?				
		Responses		Percent of Cases
		N _w	Percent	
Activities you like to see more of?(a)	Walking trail	75	7.70%	9.70%
	Water park/pool	64	6.60%	8.30%
	Parks	44	4.50%	5.70%
	Biking trail	36	3.70%	4.60%
	Wildlife preserves/wildlife watching/nature	25	2.60%	3.30%
	Archery/bows	24	2.50%	3.20%
	Campgrounds	20	2.10%	2.60%
	Dog parks	18	1.90%	2.40%
	Lakes/rivers	18	1.80%	2.30%
	Fishing areas	16	1.70%	2.10%
	Basketball/basketball courts	12	1.30%	1.60%
	Baseball/softball fields	11	1.10%	1.40%
	Boating/canoeing/docks	10	1.00%	1.30%
	Hunting areas	10	1.10%	1.30%
	Horseback riding/equestrian	10	1.00%	1.30%
	ATV areas	10	1.00%	1.30%
	Picnic areas	9	1.00%	1.20%
	Swimming areas	9	1.00%	1.20%
	Volleyball courts	9	0.90%	1.10%
	Tennis/tennis courts	9	1.00%	1.20%
	Skateboarding/skateparks	9	1.00%	1.20%
	Walking/hiking areas	8	0.90%	1.10%
	Rec centers/community center	8	0.80%	1.10%
	Gardens	8	0.80%	1.10%
a Group				

(w) Indicates weighted score; *Raw open ends available in Appendix C: \$q22

Chart RO9.1a. More Facilities Desired in Local Area



Action Standard 9.1 (AS9.1)

- IF more than 8.85% (n=68) of respondents in the total sample (n=768) OR more than 17.7% (n=68) of respondents from either the rural or urban samples scored less than a 5/5 on satisfaction with the number of local outdoor facilities OR IF more than 8.85% (n=68) of respondents in the total sample (n=768) OR more than 17.7% (n=68) of respondents from either the rural or urban samples scored less than a 5/5 on satisfaction with availability outdoor recreation facilities AND more than 5% mentioned a facility type when asked what types of facilities they would like to see more of in their area THEN recommend taking action (q21_1 and q22).

✓ *Recommend taking action on the following:*

- Walking trails (9.8%, n=75)
- Water park/pool (7.6%, n=58)
- Parks (5.7%, 44)

Management Problem

- *How popular is outdoor recreation among Missouri residents?*

Research Question 10 (RQ10)

- *How often do Missouri residents participate in outdoor recreation activities?*

Research Objective 10.1 (RO10.1)

- *Determine how often Missouri residents participate in outdoor recreation activities.*

Respondents were asked how often their household participates in various outdoor recreation activities (q5, Appendix B: q5). Activities for which more than 20% of Missouri residents participate at least once per year were tallied (Chart RO10.1a) and broken down by how frequently they participate. The highest frequency for each type of facility was noted. Darker bars correspond to more frequent use (Chart RO10.1b).

Chart RO10.1a. Missourians Who Participate in Activities At Least 1/x Per Year

q5 How often does your household participate in [x]? (at least 20% participate at least once per year, Valid Percent)

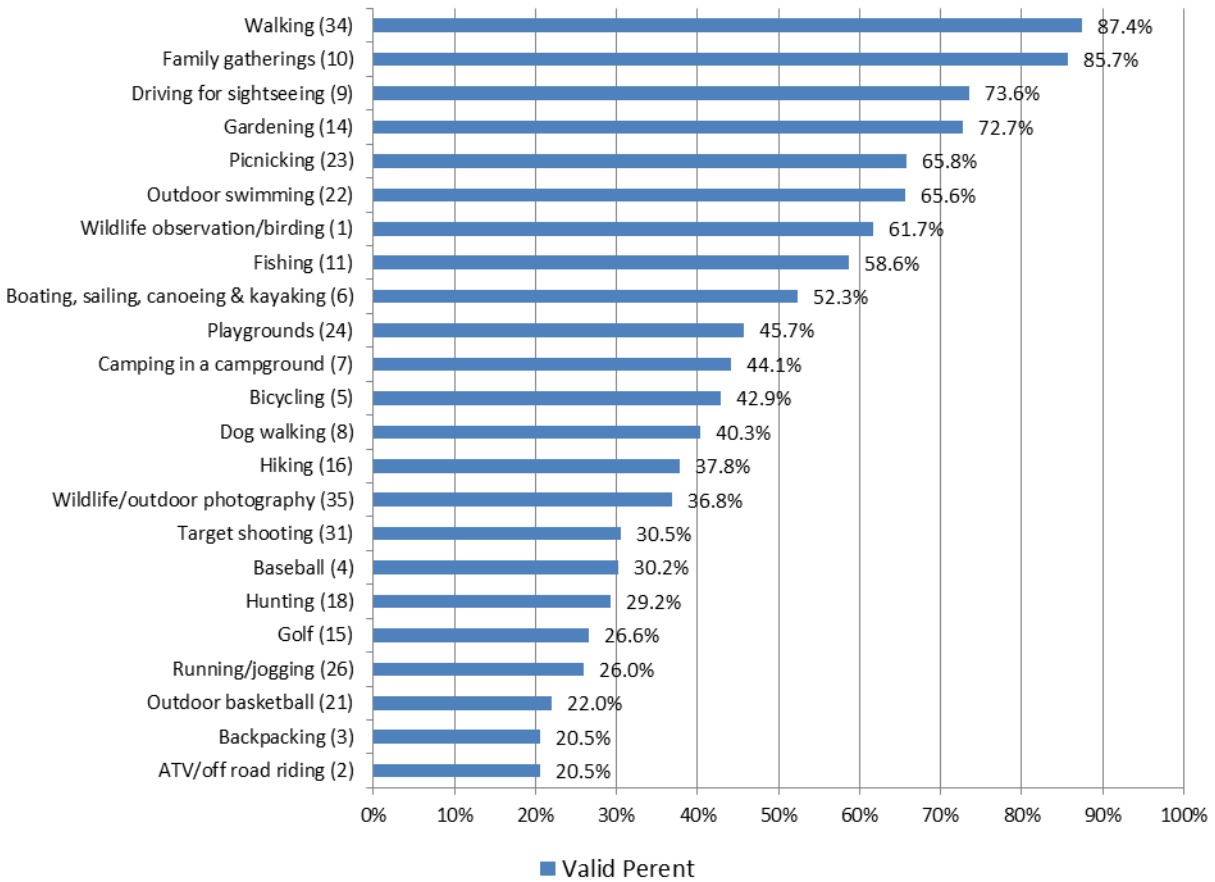
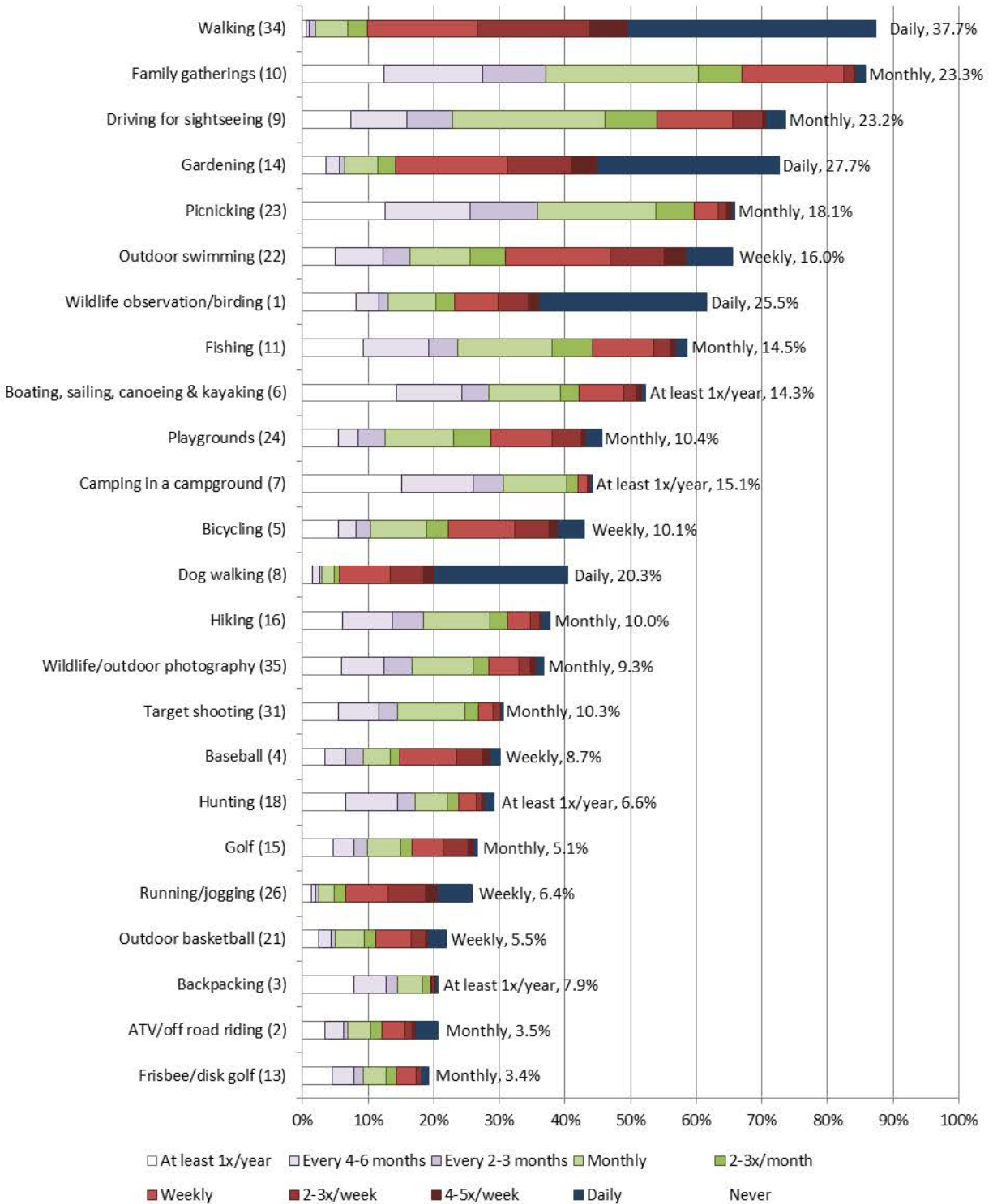


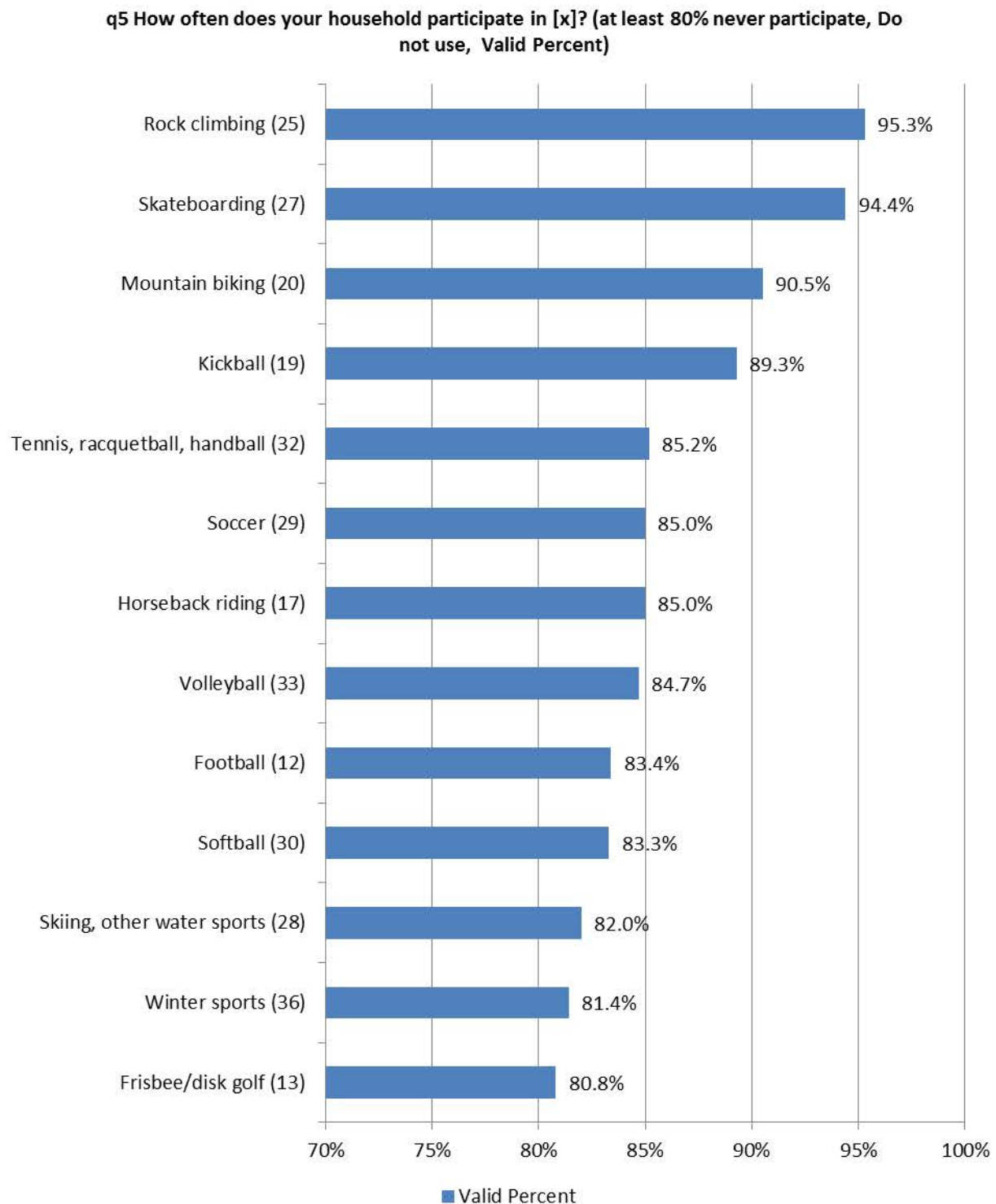
Chart RO10.1b. Frequency of Participation in Activities

q5 How often does your household participate in [x]? (at least 20% participate at least once per year, broken down by activity level. Valid Percent)



Responses were also tallied for facility types that are not used by at least 80% of Missouri residents (i.e. do not use percentage or use at least once per year percentage) (Chart RO10.1c).

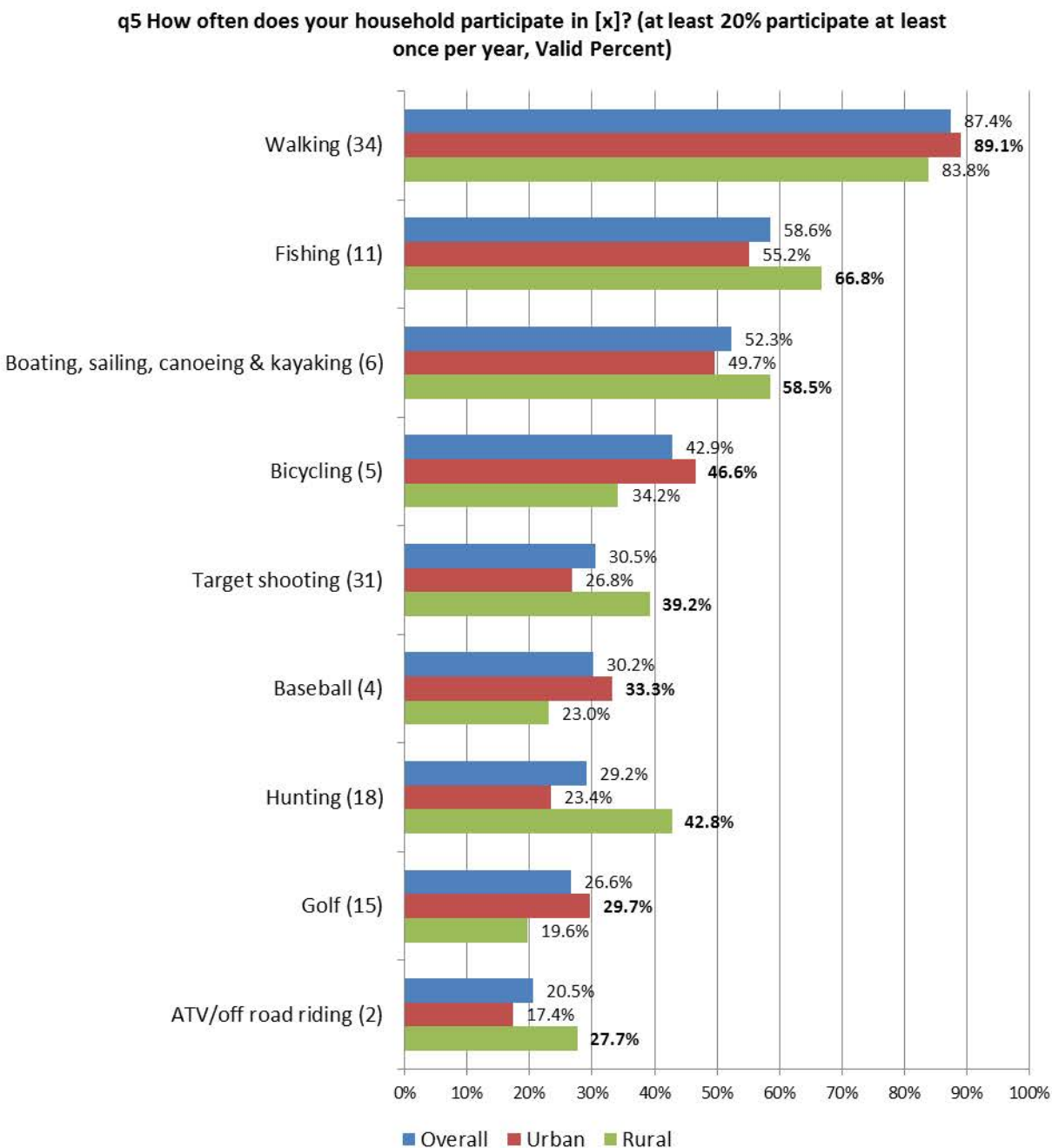
Chart RO10.1c. Missourians Who Never Participate in Activities



Activity participation differed significantly between urban and rural Missouri residents that participate in an activity at least once per year. Significantly different activity levels above 20% (i.e. at least 20% of respondents participate at least once per year) were tallied by region (urban vs. rural) and sorted from high to low (RO10.1d). Other significantly

different activity levels (at least once every 4-6 months, at least once every 2-3 months, etc.) are available in Appendix B: q5.

Chart RO10.1d. Frequency of Participation in Activities – Urban vs. Rural



Action Standard 10.1 (AS10.1)

- IF more than 20% of respondents use a facility at least once per year THEN recommend taking action (q5).

✓ *Recommend taking action on the following:*

- Walking (87.4%, $n_w=671$).
 - Higher participation among urban residents (89.1%, $n=342$) compared to rural residents (83.8%, $n=321$).
- Family gatherings (85.7%, $n_w=658$).
- Driving for sightseeing (73.6%, $n_w=566$).
- Gardening (72.7%, $n_w=558$).
- Picnicking (65.8%, $n_w=505$).
- Outdoor swimming (65.6%, $n_w=504$).
- Wildlife observation/birding (61.7%, $n_w=474$).
- Fishing (58.6%, $n_w=450$).
 - Higher participation among rural residents (66.8%, $n=256$) compared to urban residents (58.2%, $n=212$).
- Boating, sailing, canoeing and kayaking (52.3%, $n_w=402$).
 - Higher participation among rural residents (58.5%, $n=224$) compared to urban residents (49.7%, $n=191$).
- Playgrounds (45.7%, $n_w=351$).
- Camping in a campground (44.1%, $n_w=339$).
- Bicycling (42.9%, $n_w=329$).
 - Higher participation among urban residents (46.6%, $n=179$) compared to rural residents (58.5%, $n=224$).
- Dog Walking (40.3%, $n_w=310$).
- Hiking (37.8%, $n_w=290$).
- Wildlife/outdoor photography (36.8%, $n_w=283$).
- Target shooting (30.5%, $n_w=234$).
 - Higher participation among rural residents (39.5%, $n=150$) compared to urban residents (26.8%, $n=103$).
- Baseball (30.2%, $n_w=232$).
 - Higher participation among urban residents (33.3%, $n=128$) compared to rural residents (23.0%, $n=88$).
- Hunting (29.8%, $n_w=224$).
 - Higher participation among rural residents (42.8%, $n=164$) compared to urban residents (24.4%, $n=90$).
- Golf (26.6%, $n_w=205$).
 - Higher participation among urban residents (29.7%, $n=114$) compared to rural residents (19.6%, $n=75$).
- Running/jogging (26%, $n_w=200$).
- Outdoor basketball (22%, $n_w=169$).
- Backpacking (20.5%, $n_w=157$).
- ATV/off road riding (20.5%, $n_w=157$).
 - Higher participation among rural residents (27.7%, $n=106$) compared to urban residents (17.4%, $n=67$).

Research Objective 10.2 (RO10.2)

- Determine other outdoor recreation activities among Missouri residents.

Respondents were asked if there were any other outdoor recreation activities that they participate in. Open ended responses were coded and tallied for all responses mentioned in at least 1% of cases (Table RO10.2a and Appendix B: \$q7_c).

Table RO10.2a Frequencies (coded open end* – urban and rural combined) \$q7_c Have you or any member of your household participated in any other outdoor recreation activities in your local area in the past year?				
		Responses		Percent of Cases
		N	Percent	
Activities you like to see more of?(a)	Zoo	17	2.00%	2.20%
	Concerts/festivals/fairs	16	2.00%	2.10%
	Museums/The Muny	13	1.50%	1.60%
	Walking/hiking	12	1.50%	1.60%
	Biking/motor biking	11	1.30%	1.40%
	Parks	11	1.30%	1.40%
	Running/jogging	10	1.20%	1.30%
	Boating/canoeing/docks	9	1.00%	1.10%
	Baseball/softball	7	0.90%	1.00%
	Fishing	8	0.90%	1.00%
a Group				

(w) Indicates weighted score; *Raw open ends available in Appendix C: \$q7

Action Standard 10.2 (AS10.2)

- IF more than 5% of respondents mention an unlisted activity type THEN recommend taking action (q7).

✖ No action recommended.

Research Question 11 (RQ11)

- ***Are activity levels of various outdoor recreation activities in Missouri increasing, decreasing, or remaining the same among Missouri residents?***

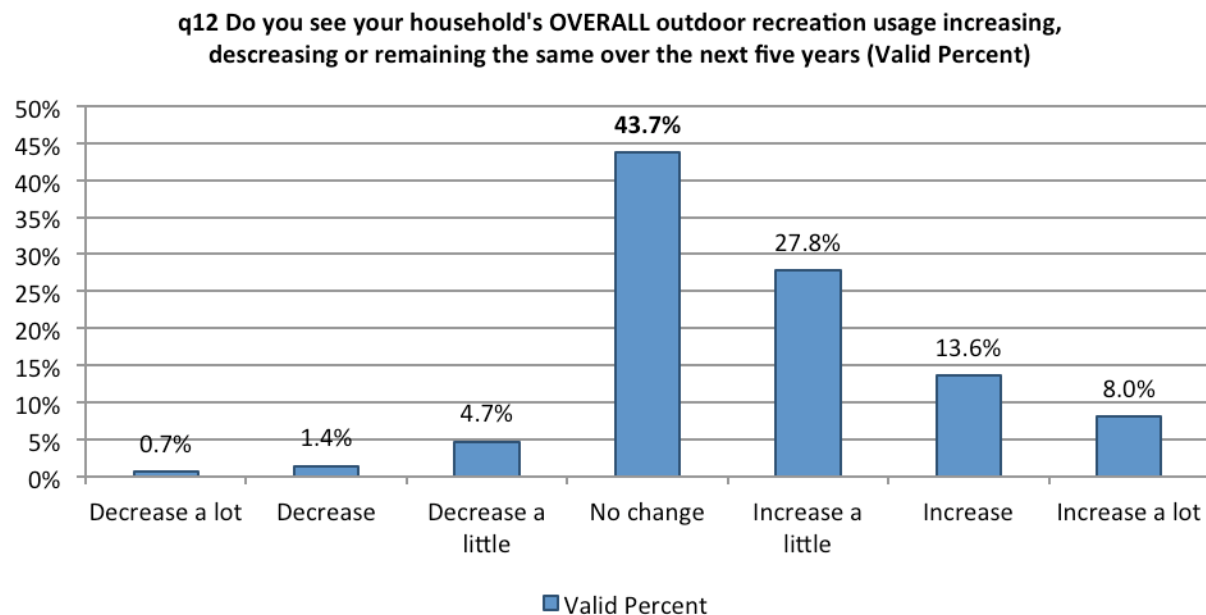
Research Objective 11.1 (RO11.1)

- *Determine overall perceived outdoor recreation activity level change among Missouri residents.*

Respondents were asked if they see their household's overall outdoor recreation usage increasing a lot, increasing, increasing a little, not changing, decreasing a little, decreasing, or decreasing a lot more than the next five years (Chart RO11.1a, and Appendix B: q12).

- 49.4% ($n_w=381$) of Missouri residents perceive their household's overall outdoor recreation usage increasing at least a little more than the next five years.
- 21.6% ($n_w=167$) of Missouri residents perceive their household's overall outdoor recreation usage increasing or increasing a lot in the next five years.

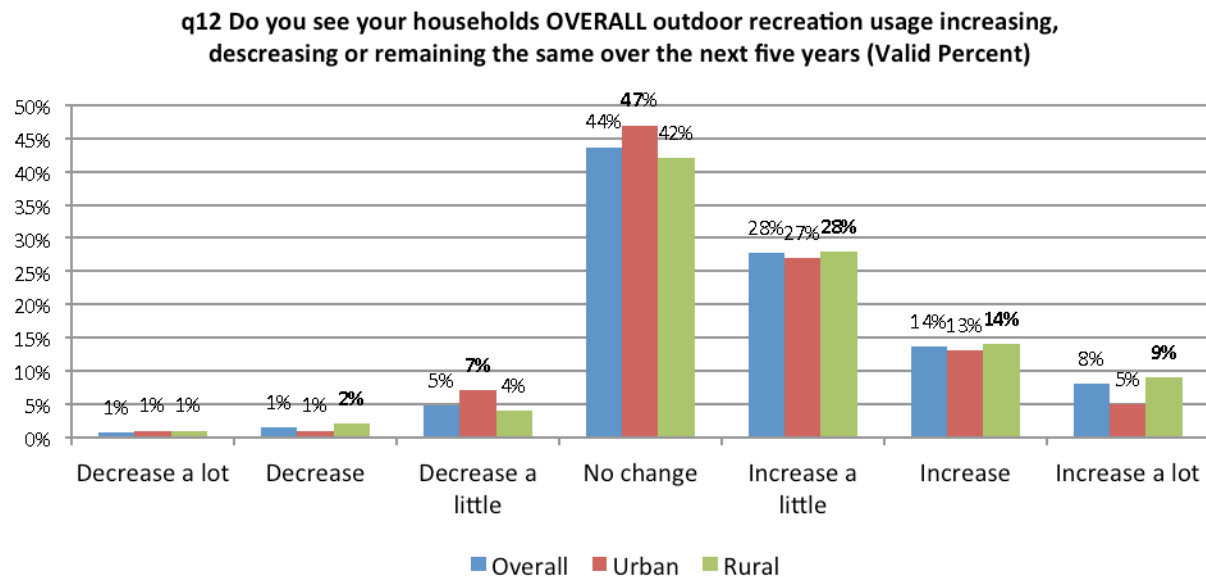
Chart RO11.1a. Change in Participation Next Five Years



Expected usage in the next five years differs significantly among urban and rural residents (Chart RO11.1b).

- 9.4% ($n=36$) of urban Missouri residents expect their usage to increase a lot compared to 4.9% ($n=19$) of rural Missouri residents.
- 3.6% ($n=14$) of urban Missouri residents expect their usage to decrease a little compared to 7.0% ($n=27$) of rural Missouri residents.

Chart RO11.1b. Change in Participation Next Five Years – Urban vs. Rural



Research Objective 11.2 (RO11.2)

- Determine perceived outdoor recreation activity level changes among Missouri residents in the next five years.

Respondents were asked whether their participation in various outdoor recreation activities is going to increase, decrease or remain the same over the next five years (Appendix B: q6).

Respondents were sorted by about right percentages based on the total percent who indicated no change to q6 (Chart RO11.2a); and based on the percent who indicated about right to q14, among those who participate in the activity at least once per year (Chart RO11.2b).

Chart RO11.2a. No Change in Activity Next Five Years – Missourians Overall

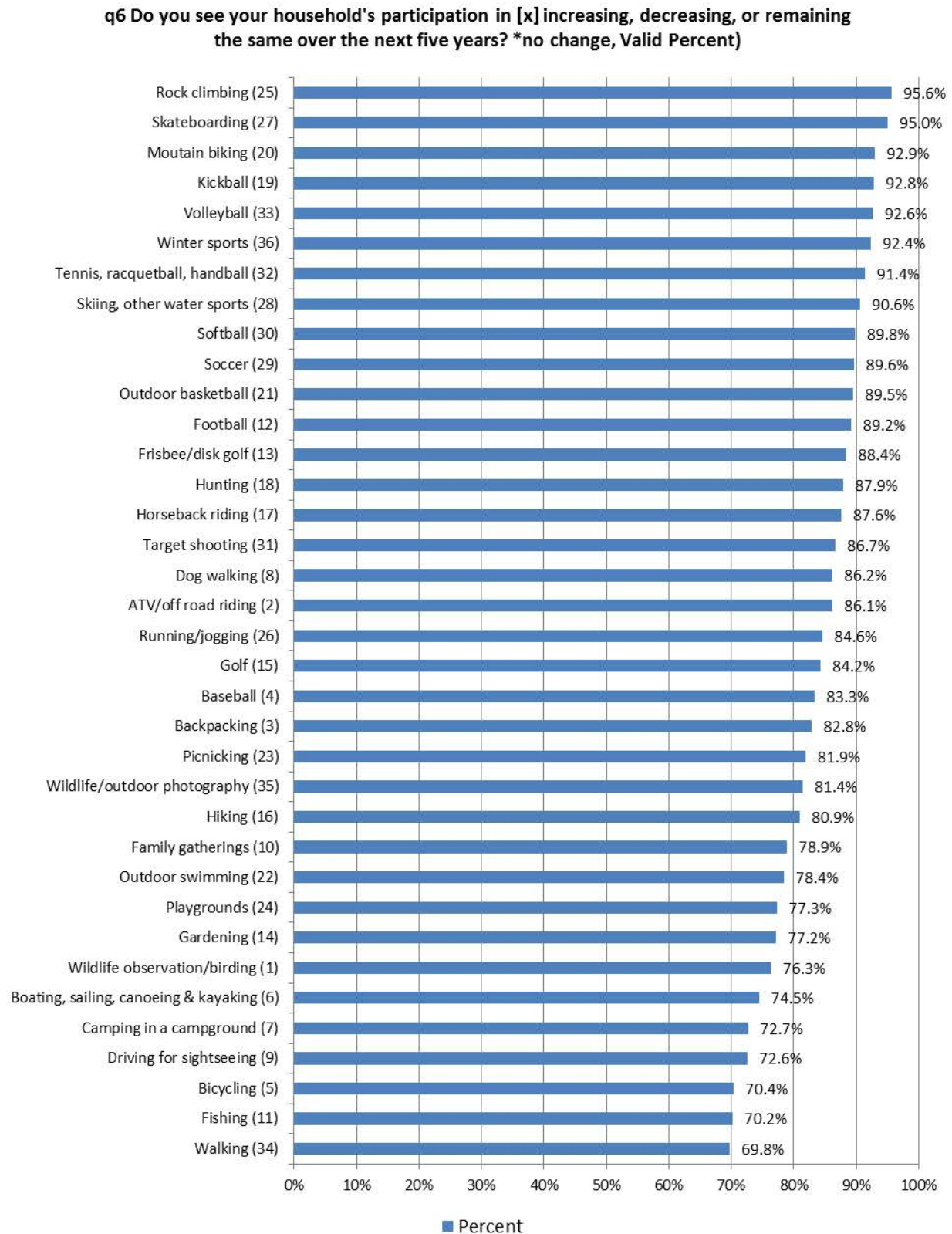
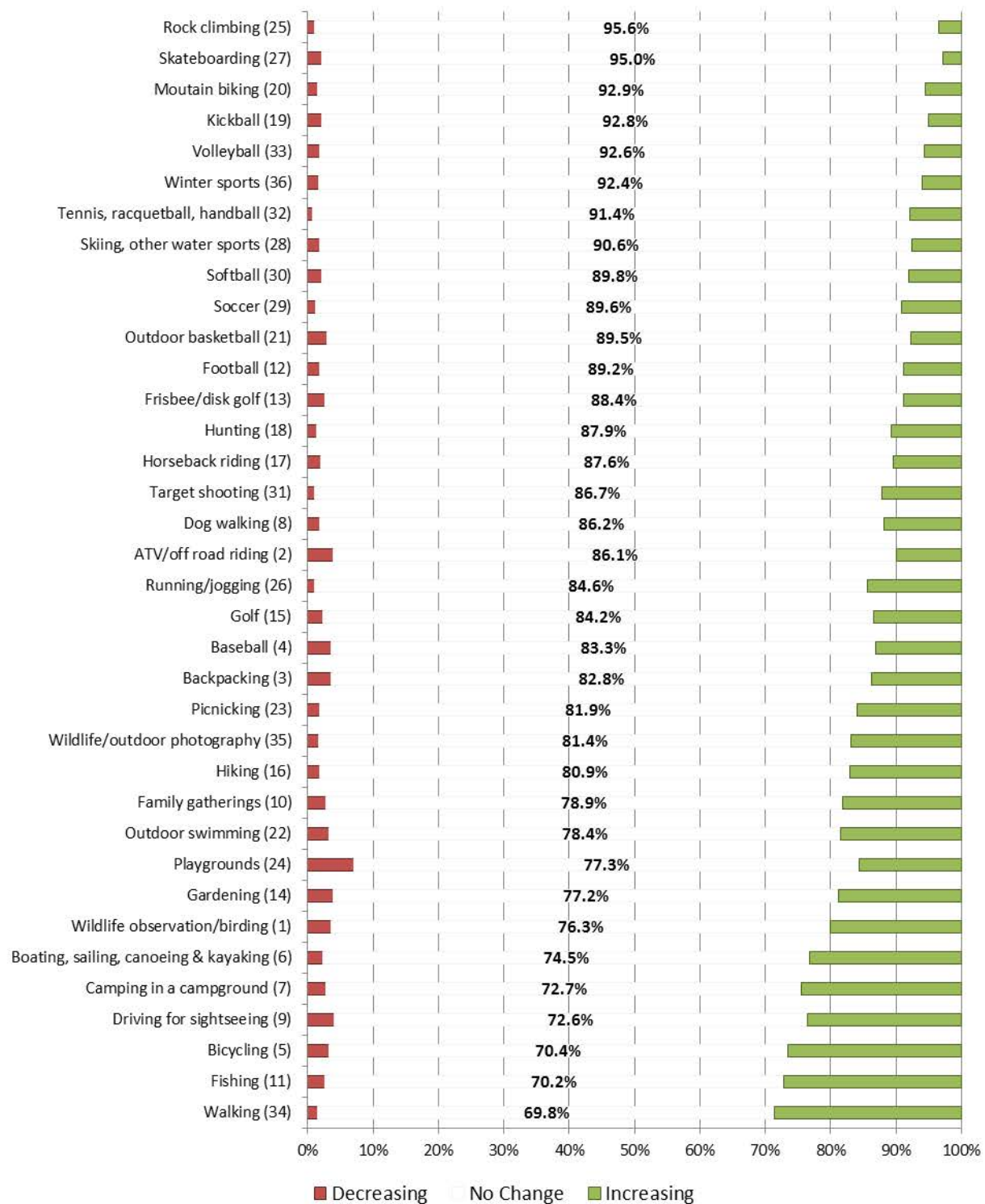


Chart RO11.2b. Change in Activity Next Five Years – Participate At Least 1/x Per Year

q6 Do you see your household's participation in [x] Increasing, decreasing, or remaining the same over the next five year? (at least 8.8% (n=68) participate at least once per year, no change in activity level, Percent)



Increasing a lot and increasing percentages were combined and tallied then sorted by percentage of total sample (Chart RO11.2c). Percentage of those who use at least once per year was broken down (Chart RO11.2d, about right percent is collapsed in order to emphasize increasing and increasing a lot percentages).

Chart RO11.2c. Increase In Activity Next Five Years – Missourians Overall

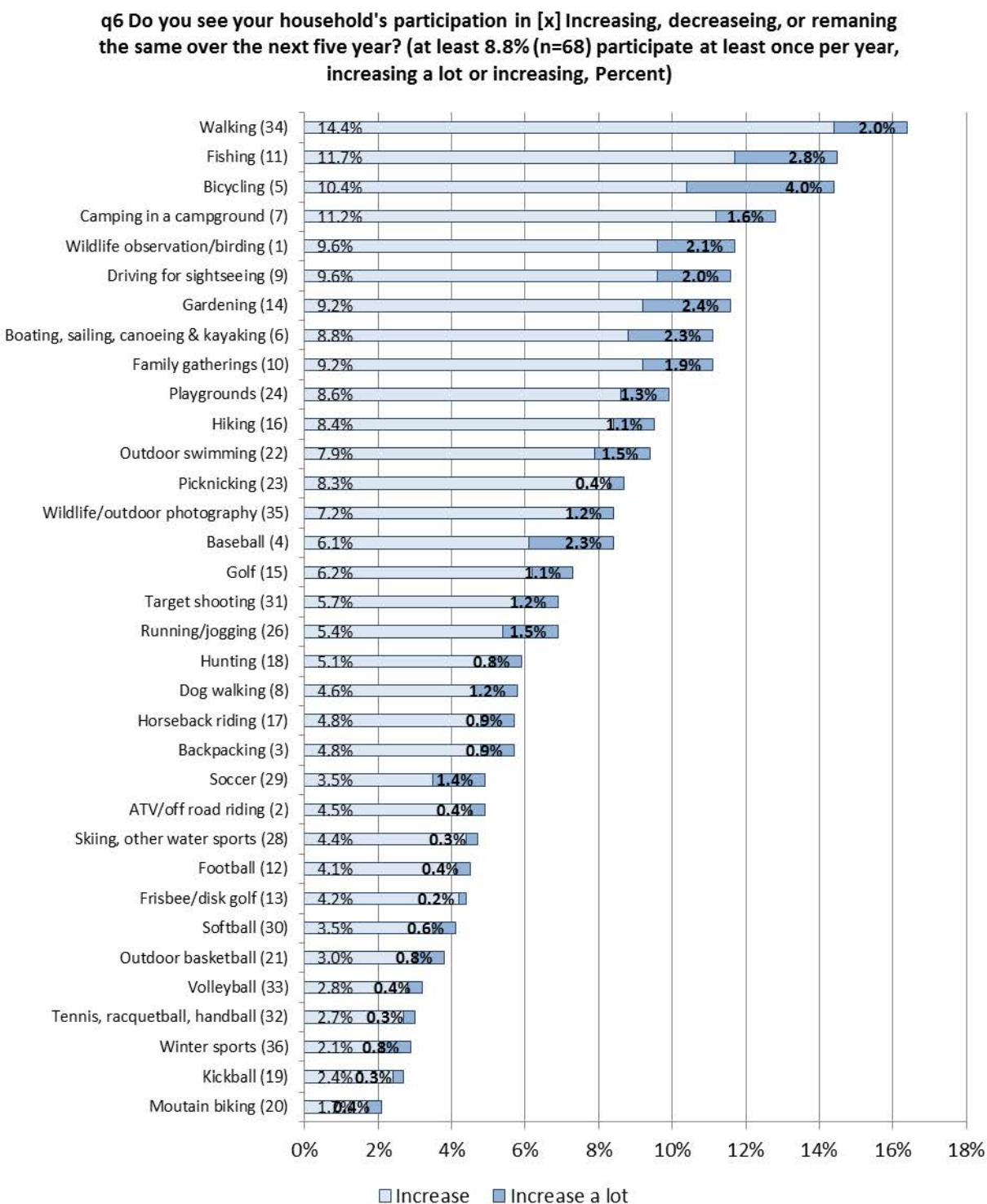
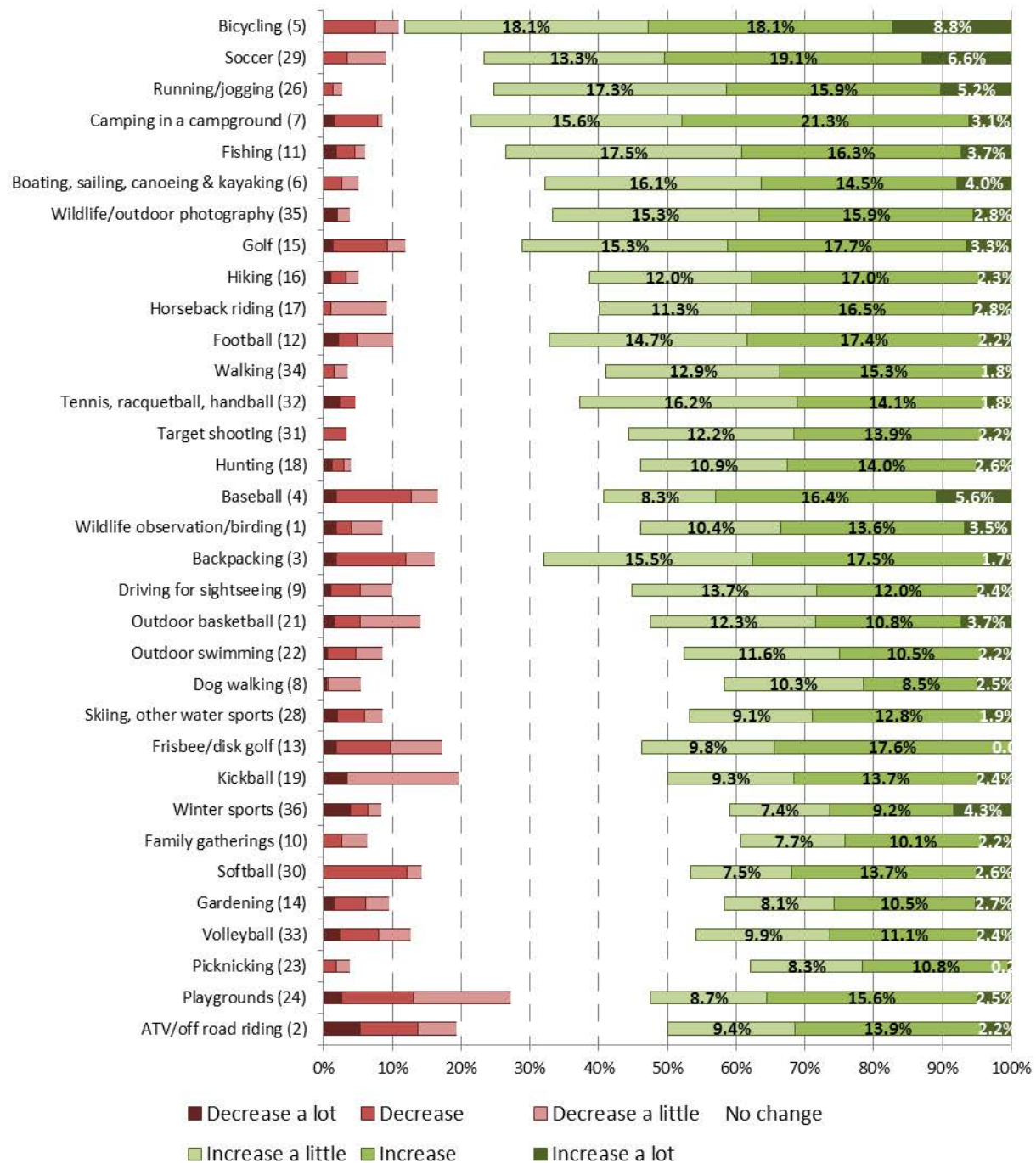


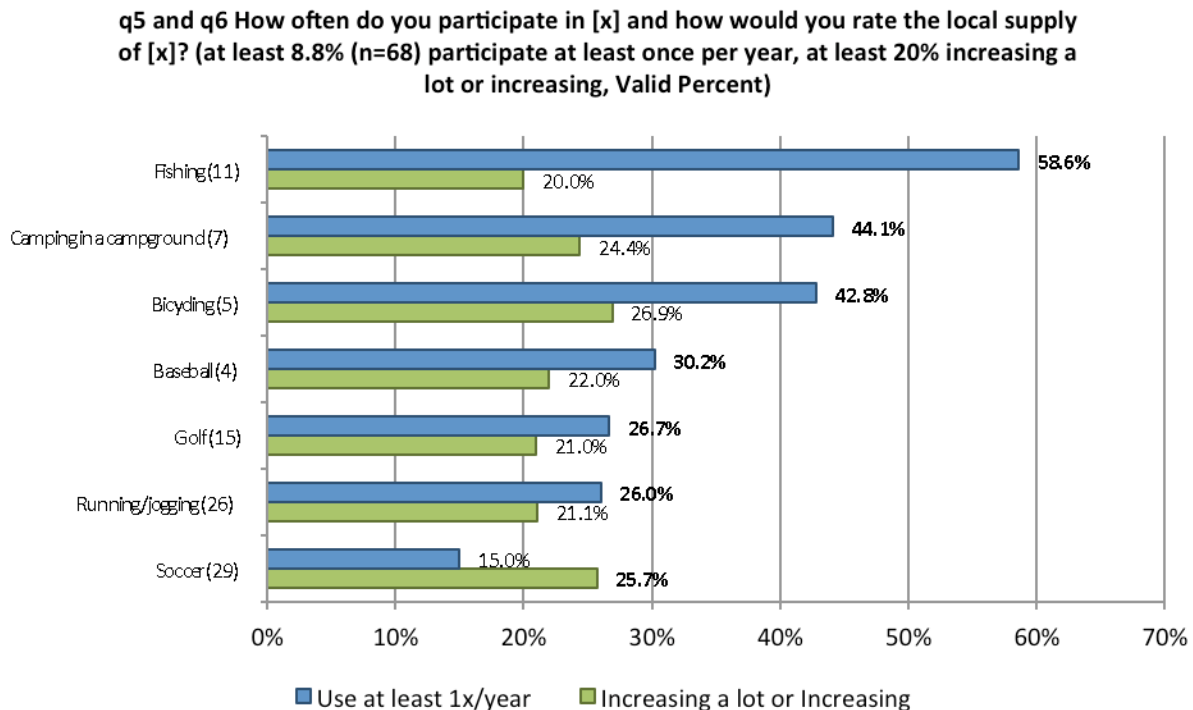
Chart RO11.2d. Change in Activity Next Five Years – Participate At Least 1/x Per Year

q6 Do you see your household's participation in [x], increasing, decreasing, or remaining the same over the next five years? (at least 8.8% (n=68) participate at least once per year, Valid Percent)



Increasing a lot and increasing percentages were combined for respondents who participate in an activity at least once per year (Chart RO11.2e).

Chart RO11.2e. Increase in Activity Next Five Years – Participate At Least 1/x Per Year



Action Standard 11.2 (AS11.2)

- IF more than 8.85% (n=96) of respondents in the total sample (n=768) OR more than 17.7% (n=96) of respondents from either the rural or urban participate in a specific activity in their area AND more than 20% indicate their activity is either increasing or increasing a lot THEN recommend taking action (q5_1 through q5_36 and q6_1 through q6_36).

✓ Recommend taking action on the following:

- Fishing (58.6%, n_w=450).
 - 20.0% of Missouri residents will either increase or increase activity a lot in the next five years.
- Camping in a campground (44.1%, n_w=339).
 - 24.4% of Missouri residents will either increase or increase activity a lot in the next five years.
- Bicycling (42.8%, n_w=329).
 - 26.9% of Missouri residents will either increase or increase activity a lot in the next five years.
- Baseball (30.2%, n_w=232).
 - 22.0% of Missouri residents will either increase or increase a lot in the next five years.
- Golf (26.7%, n_w=205).
 - 21.0% of Missouri residents will either increase or increase activity a lot in the next five years.
- Running/jogging (26.0%, n_w=200).
 - 21.1% of Missouri residents will either increase or increase a lot in the next five years.
- Soccer (15.0%, n_w=115).
 - 25.7% of Missouri residents will either increase or increase a lot in the next five years.

Research Question 12 (RQ12)

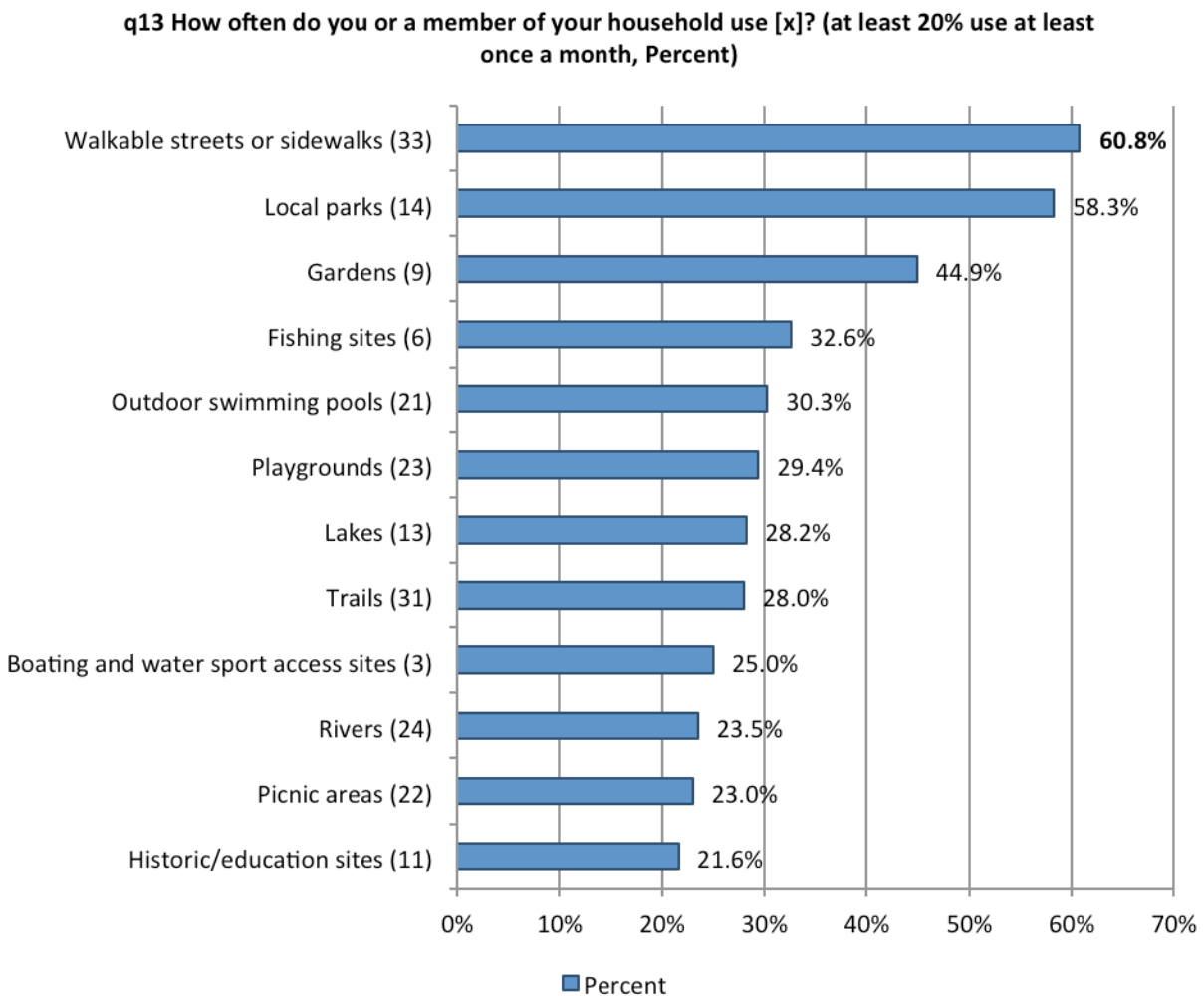
- *How often do Missouri residents use outdoor recreation facilities in Missouri?*

Research Objective 12.1 (RO12.1)

- *Determine how often Missouri residents use outdoor recreation facilities in Missouri.*

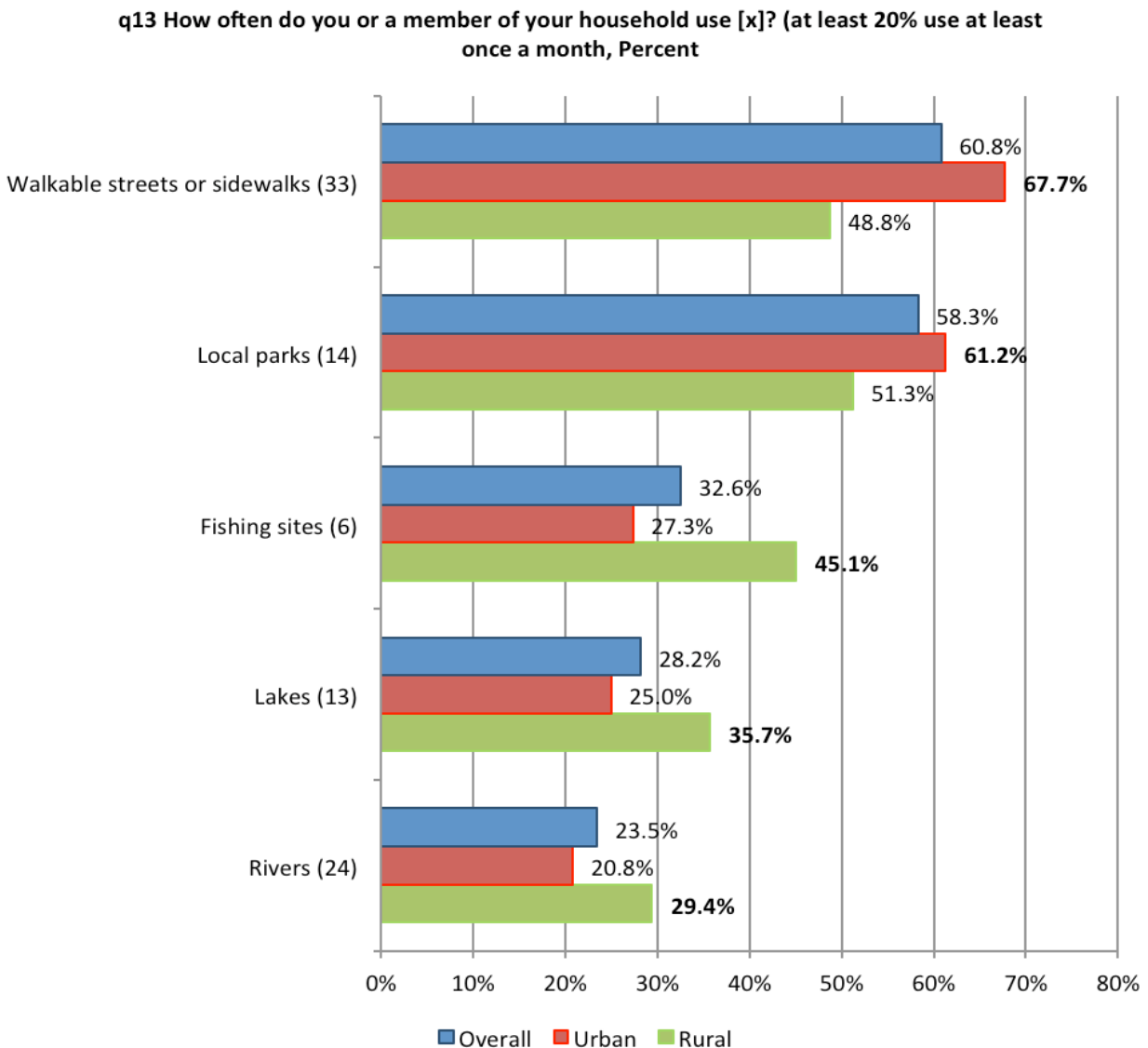
Respondents were asked how often they use outdoor recreation facilities in Missouri (q13). Facilities used by at least 20% of the population were tallied and charted (Chart RO12.1a and Appendix B: q13).

Chart RO12.1a. Use Facility At Least Monthly



Monthly usage among urban Missouri residents and monthly usage among rural Missouri residents differed significantly (Chart RO12.1b).

Chart RO12.1b. Use Facility At Least Monthly – Urban vs. Rural



Action Standard 12.1 (AS12.1)

- IF more than 20% of respondents use a facility type at least at least once per month THEN recommend taking action (q13_1 through q13_34).

✓ *Recommend taking action on the following:*

- Walkable streets or sidewalks (60.8%, $n_w=467$).
 - Higher usage among urban residents (67.7%, $n=260$) compared to rural residents (48.8%, $n=172$).
- Local parks (58.3%, $n_w=447$).
 - Higher usage among urban residents (61.2%, $n=235$) compared to rural residents (51.3%, $n=197$).
- Gardens (44.9%, $n_w=344$).

- Fishing sites (32.6%, n_w=250).
 - Higher usage among rural residents (45.1%, n=173) compared to urban residents (27.3%, n=105).
- Outdoor swimming pools (30.3%, n_w=233).
- Playgrounds (29.4%, n_w=226).
- Lakes (28.2%, n_w=217).
 - Higher usage among rural residents (35.7%, n=137) compared to urban residents (25.0%, n=96).
- Trails (28.0%, n_w=215).
- Boating and water sport access sites (25.0%, n_w=192).
- Rivers (23.5%, n_w=180).
 - Higher usage among rural residents (29.4%, n=113) compared to urban residents (23.5%, n=180).
- Picnic areas (23.0%, n_w=177).
- Historical/education sites (21.6%, n_w=166).

Research Objective 12.2 (RO12.2)

- *Determine other outdoor recreation facilities being used by Missouri residents.*

Respondents were asked if they have used any other outdoor recreation facilities in their local area in the past year. Open ended responses were coded and tallied for all responses mentioned in at least 1% of cases ((Table RO12.2 and Appendix B: \$q16_c).

Table RO12.2 Frequencies (coded open end* – urban and rural combined) \$q16_c Have you or any member of your household used any other outdoor recreation facilities in your local area in the past year?				
		Responses		Percent of Cases
		N _w	Percent	
Activities you like to see more of?(a)	Parks	52	6.30%	6.80%
	Wildlife preserves/wildlife watching/nature	27	3.30%	3.60%
	Lakes/Rivers	21	2.60%	2.80%
	Zoo	18	2.20%	2.40%
	Ozarks	13	1.60%	1.70%
	Gardens	8	1.00%	1.00%
	Branson	7	0.90%	1.00%
a Group				

(w) Indicates weighted score; *Raw open ends available in Appendix C: \$q16

Action Standard 12.2 (AS12.2)

- IF more than 5% of respondents mention an unlisted facility type THEN recommend taking action (q16).
- ✓ *Recommend taking action on the following:*
- Parks (6.8%, n=52).

Management Problem

- *Why aren't Missouri residents participating in outdoor recreation activities?*

Research Question 13 (RQ13)

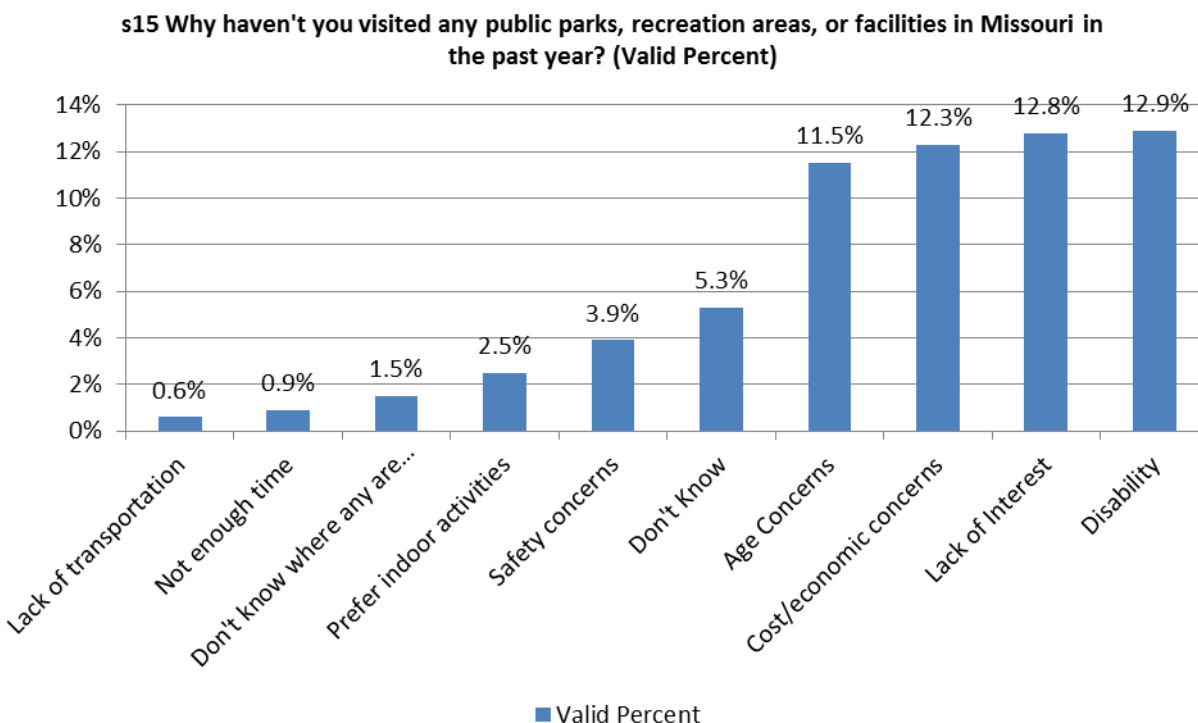
- *Why aren't Missouri residents participating in outdoor recreation activities?*

Research Objective 13.1 (RO13.1)

- *Determine reasons Missouri residents aren't participating in outdoor recreation activities.*

Respondents who did not participate in outdoor recreation at least once in the past year (s14) were asked why they have not participated before being terminated for the survey (s15). A total of n=227 respondents provided answers (Chart RO13.1a, Appendix B: s15).

Chart RO13.1a. Why Missourians Don't Participate in Outdoor Recreation



Among those that answered other, 22.9% (n=11, 4.8% of those answering s15) indicated they have a farm or other property they use for recreation. 10.4% of those that answered other indicated the weather being too hot (n=5, 2.2% of those that answered s15) and 10.4% of those that answered other indicated being too busy/not having time (n=5, 2.2%).

Management Problem

- *How satisfied are Missouri residents with outdoor recreation in Missouri?*

Research Question 14 (RQ14)

- *How satisfied are Missouri residents with outdoor recreation activities in Missouri?*

Research Objective 14.1 (RO14.1)

- *Determine overall satisfaction of Missouri residents with outdoor recreation activities in Missouri.*

Respondents were asked how satisfied they are with outdoor recreation activities in Missouri overall, using a 1 to 5 scale with 1 being “Not at all satisfied” and 5 being “Very Satisfied” (Table RO14.1a, Chart RO14.1a and Appendix B: q8).

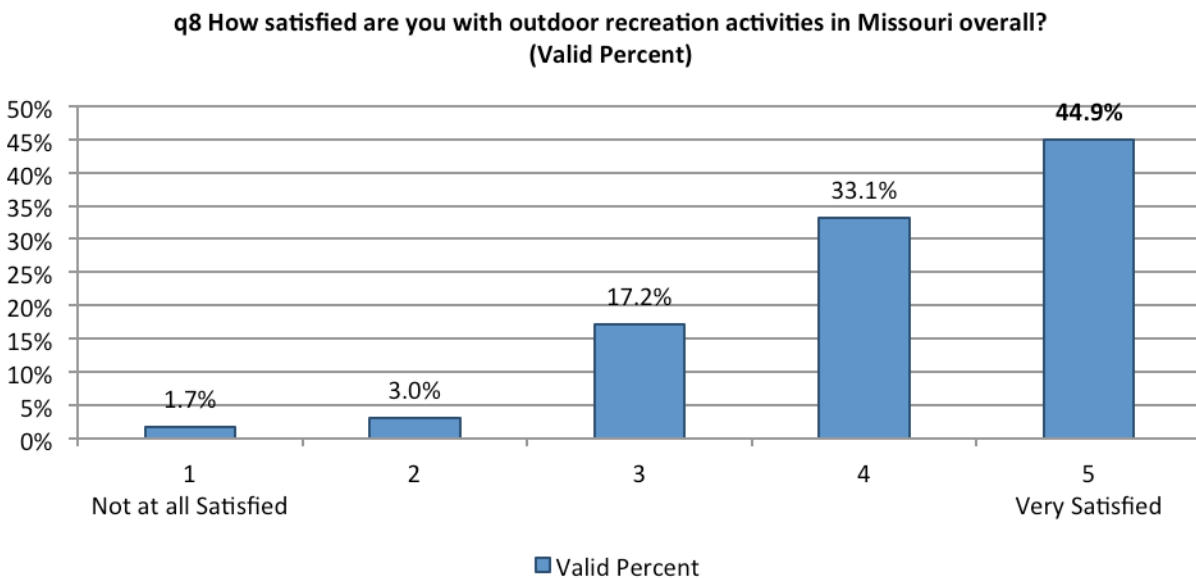
- 44.9% ($n_w=345$) of Missouri residents are very satisfied overall with outdoor recreation activities in Missouri.
- 95% confident that overall satisfaction among Missouri residents with the outdoor recreation activities in Missouri is between 4.10 and 4.24 ($\bar{x}_w = 4.17 \pm 0.067$).

Table RO14.1a. Descriptive Statistics (urban and rural combined and weighted)
q8 How satisfied are you with outdoor recreation activities in Missouri overall?

	Frequency	Mean _w	Std. Error	Std. Dev.
q8 How satisfied are you with outdoor recreation activities in Missouri overall?	768	4.17	0.034	0.931

(w) Indicates weighted score

Chart RO14.1a. Satisfaction with Activities in Missouri Overall



Action Standard 14.1 (AS14.1)

- IF overall satisfaction with outdoor recreation activities in Missouri mean score is below a 4.0 OR top box score is below 30% THEN recommend taking action (q8).

✖ *No action recommended.*

Research Objective 14.2 (RO14.2)

- *Determine overall satisfaction of Missouri residents with local outdoor recreation activities.*

Respondents were asked how satisfied they are with local outdoor recreation activities in their area, using a 1 to 5 scale with 1 being “Not at all satisfied” and 5 being “Very Satisfied” (q8). Urban and rural data were combined and weighted (see methodology) to reflect the 70% urban/30% rural proportions in the general population of Missouri residents (Table RO14.2a, Chart RO14.2a and Appendix B: q9).

- 37.5% ($n_w=288$) of Missouri residents are very satisfied with outdoor recreation activities in their local area, as compared to 44.9% who are very satisfied with outdoor recreation activities in Missouri overall.
- 95% confident that satisfaction among Missouri residents with local outdoor recreation activities is between 3.81 and 3.97 ($\bar{x}_w = 3.89 \pm 0.078$).

Table RO14.2a. Descriptive Statistics (urban and rural combined and weighted) q9 How satisfied are you with outdoor recreation activities in your local area?				
	Frequency	Mean _w	Std. Error	Std. Deviation
q9 How satisfied are you with outdoor recreation activities in your local area?	768	3.89	0.04	1.107

(w) Indicates weighted score

Chart RO14.2a. Satisfaction with Local Activities



Action Standard 14.2 (AS14.2)

- IF overall satisfaction with local outdoor activities mean score is below a 4.0 OR top box is below 30% THEN recommend taking action (q9).

✖ *No action recommended.*

Research Question 15 (RQ15)

- *How satisfied are Missouri residents with various aspects of outdoor recreation activities in Missouri?*

Research Objective 15.1 (RO15.1)

- *Determine satisfaction of Missouri residents with the quality of local outdoor recreation activities.*

Respondents were asked how satisfied they are with the quality of local outdoor recreation activities, using a 1 to 5 scale with 1 being “Not at all satisfied” and 5 being “Very Satisfied” (Table RO15.1a, Chart RO15.1a and Appendix B: q10_1).

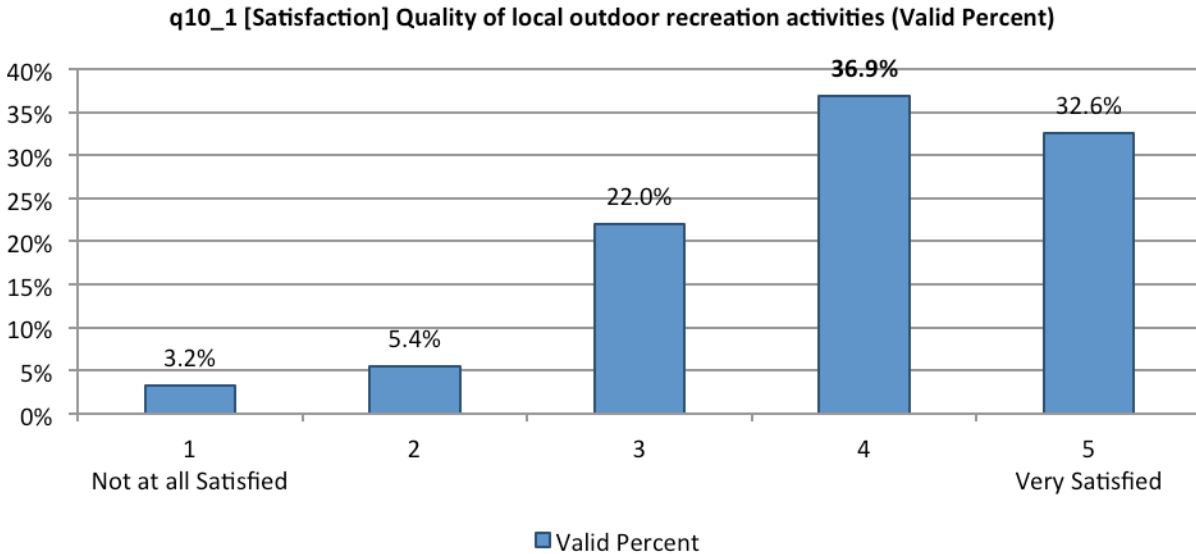
- 32.6% ($n_w=252$) of Missouri residents are very satisfied with the quality of local outdoor recreation activities.
- 95% confident that overall satisfaction among Missouri residents with the quality of local outdoor recreation activities is between 3.83 and 3.97 ($\bar{x}_w=3.90 \pm 0.072$).

Table RO15.1a. Descriptive Statistics (urban and rural combined and weighted)
q10_1 [Satisfaction] Quality of local outdoor recreation activities

	Frequency	Mean _w	Std. Error	Std. Dev
q10_1 [Satisfaction] Quality of local outdoor recreation activities	768	3.9	0.037	1.018

(w) Indicates weighted score

Chart RO15.1a. Satisfaction with Local Outdoor Recreation Activities



Action Standard 15.1 (AS15.1)

- IF satisfaction with quality of local outdoor recreation activities mean score is below a 3.5 OR top box score is below 30% THEN recommend taking action (q10_1).

✖ *No action recommended.*

Research Objective 15.2 (RO15.2)

- Determine satisfaction of Missouri residents with the availability of local outdoor activities (See RO4.1).

See research Objective 4.1 (RO4.1).

Research Objective 15.3 (RO15.3)

- Determine satisfaction of Missouri residents with accessibility of information about outdoor recreation activities.

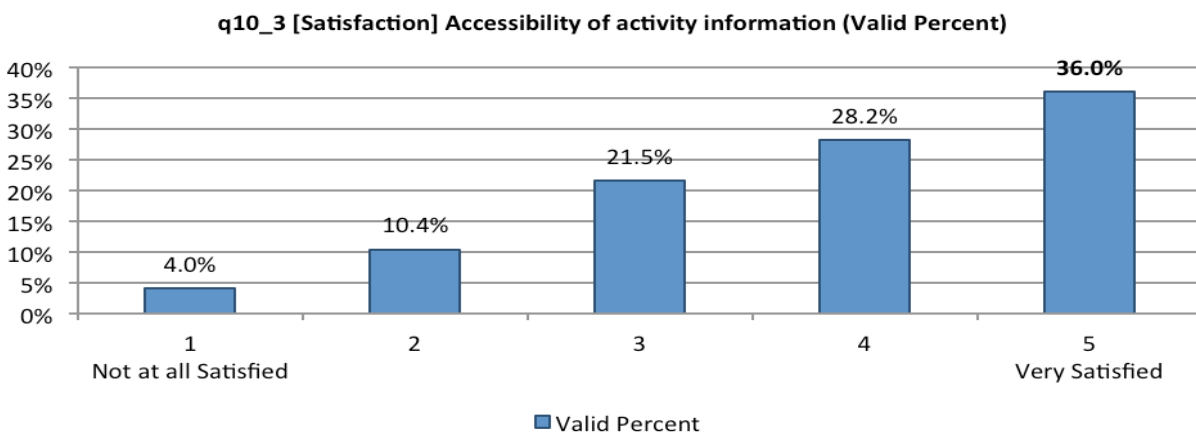
Respondents were asked how satisfied they are with the accessibility of outdoor recreation activity information, using a 1 to 5 scale with 1 being “Not at all satisfied” and 5 being “Very Satisfied” (Table RO15.3a, Chart RO15.3a and Appendix B: q10_3).

- 36.0% ($n_w=276$) of Missouri residents are very satisfied with the accessibility of information about outdoor recreation activity.
- 95% confident that satisfaction among Missouri residents with the accessibility of information about outdoor recreation activity is between 3.74 and 3.90 ($\bar{x}_w=3.82 \pm 0.080$).

Table RO15.3a. Descriptive Statistics (urban and rural combined and weighted) q10_3 [Satisfaction] Accessibility of activity information				
	Frequency	Mean _w	Std. Error	Std. Deviation
q10_3 [Satisfaction] Accessibility of activity information	768	3.82	0.041	1.149

(w) Indicates weighted score

Chart RO15.3a. Satisfaction with Accessibility of Information About Outdoor Recreation Activities



Action Standard 15.3 (AS15.3)

- IF satisfaction with accessibility of activity information mean score is below a 3.5 OR top box score is below 30% THEN recommend taking action (q10_3).

✕ No action recommended.

Research Objective 15.4 (RO15.4)

- Determine satisfaction of Missouri residents with variety of local outdoor recreation activities.

Respondents were asked how satisfied they are with the variety of local outdoor recreation activities, using a 1 to 5 scale with 1 being “Not at all satisfied” and 5 being “Very Satisfied” (Table RO15.4a, Chart RO15.4a and Appendix B: q10_4).

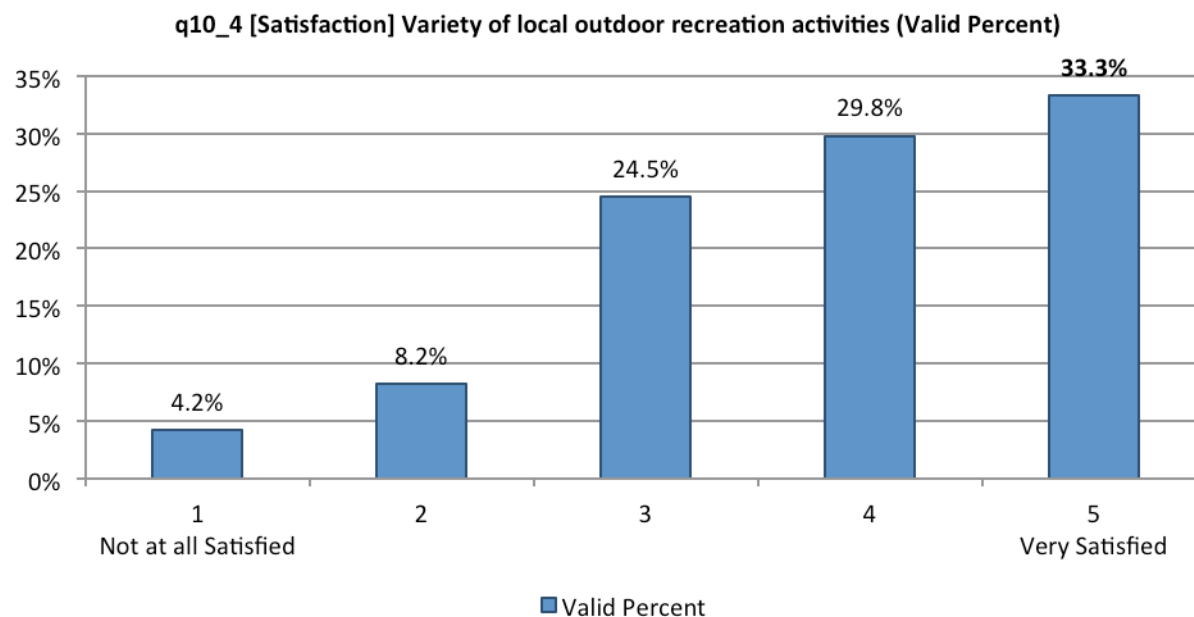
- 33.3% ($n_w=256$) of Missouri residents are very satisfied with the variety of local outdoor recreation activities.
- 95% confident that satisfaction among Missouri residents with the variety of local outdoor recreation activities is between 3.72 and 3.89 ($\bar{x}_w=3.80 \pm 0.078$).

Table RO15.4a. Descriptive Statistics (urban and rural combined and weighted)
q10_4 [Satisfaction] Variety of local outdoor recreation activities

	Frequency	Mean _w	Std. Error	Std. Dev.
q10_4 [Satisfaction] Variety of local outdoor recreation activities	768	3.8	0.04	1.115

(w) Indicates weighted score

Chart RO15.4a. Satisfaction with Variety of Local Outdoor Recreation Activities



Action Standard 15.4 (AS15.4)

- IF satisfaction with variety of local outdoor recreation activities mean score is below a 3.5 OR top box score is below 30% THEN recommend taking action (q10_4).

✕ No action recommended.

Research Objective 15.5 (RO15.5)

- Determine satisfaction of Missouri residents with community participation in local outdoor recreation activities.

Respondents were asked how satisfied they are with community participation in local outdoor recreation activities, using a 1 to 5 scale with 1 being “Not at all satisfied” and 5 being “Very Satisfied” (Table RO15.5a, Chart RO15.5a and Appendix B: q10_5).

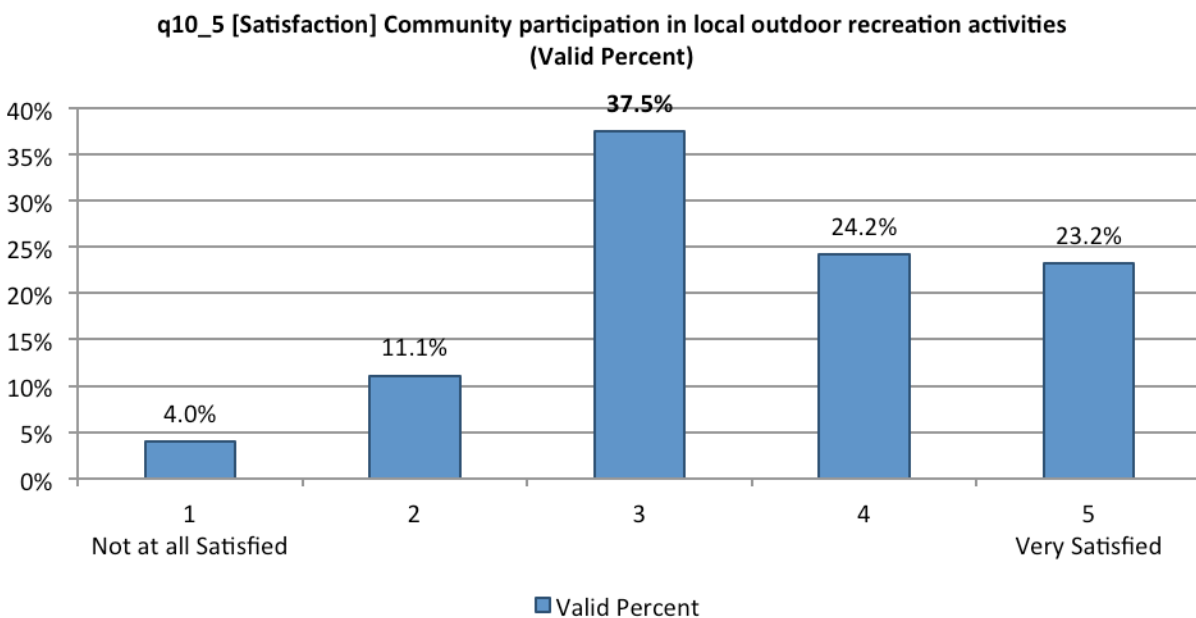
- 23.2% ($n_w=178$) of Missouri residents are very satisfied with community participation in local outdoor recreation activities.
- 95% confident that satisfaction among Missouri residents with community participation in local outdoor recreation activities is between 3.43 and 3.59 ($\bar{x}_w=3.51 \pm 0.076$).

Table RO15.5a. Descriptive Statistics (urban and rural combined and weighted)
q10_5 [Satisfaction] Community participation in local outdoor recreation activities

	Frequency	Mean _w	Std. Error	Std. Dev.
q10_5 [Satisfaction] Community participation in local outdoor recreation activities	768	3.51	0.039	1.086

(w) Indicates weighted score

Chart RO15.5a. Satisfaction with Community Participation



Urban and rural populations were compared and there are no significant differences between the two populations.

Action Standard 15.5 (AS15.5)

- IF satisfaction with community participation in local outdoor recreation activities mean score is below a 3.5 OR top box score is below 30% THEN recommend taking action (q10_5).

✓ *Recommend taking action on the following:*

- Satisfaction with community participation in outdoor recreation top box is less than 30%.

Research Objective 15.6 (RO15.6)

- *Determine satisfaction of Missouri residents with outdoor user and group interactions.*

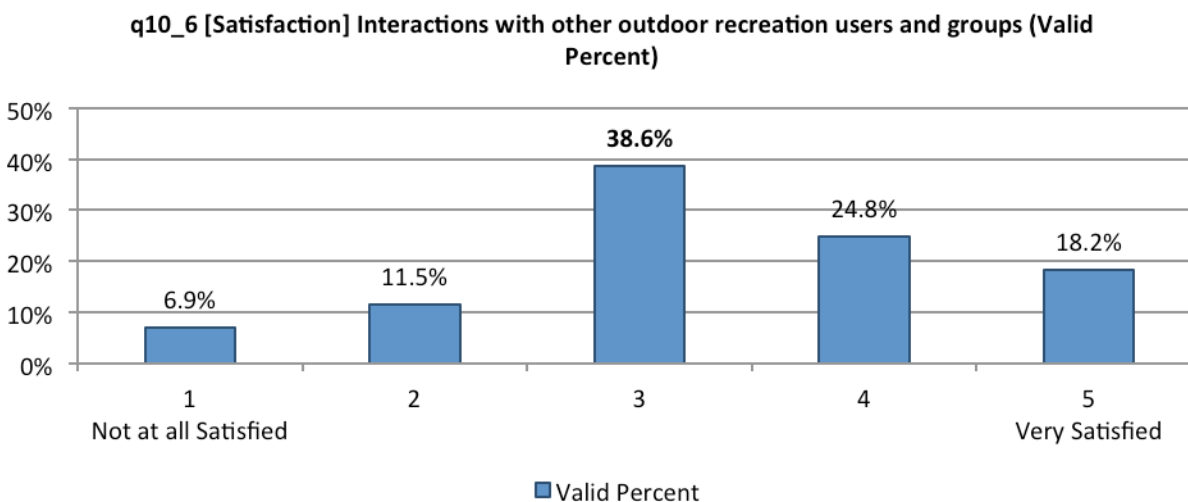
Respondents were asked how satisfied they are with interactions with other outdoor recreation users and groups, using a 1 to 5 scale with 1 being “Not at all satisfied” and 5 being “Very Satisfied” (Table RO15.6a, Chart RO15.6a and Appendix B: q10_6).

- 18.2% ($n_w=140$) of Missouri residents are very satisfied with their interactions with other outdoor recreation users and groups.
- 95% confident that satisfaction among Missouri residents with their interactions with other outdoor recreation users and groups is between 3.28 and 3.44 ($\bar{x}_w = 3.36 \pm 0.078$).

Table RO15.6a. Descriptive Statistics (urban and rural combined and weighted) q10_6 [Satisfaction] Interactions with other outdoor recreation users and groups				
	Frequency	Mean _w	Std. Error	Std. Dev.
q10_6 [Satisfaction] Interactions with other outdoor recreation users and groups	768	3.36	0.04	1.113

(w) Indicates weighted score

Chart RO15.6a. Satisfaction with Interactions with Other Users and Groups



Urban and rural populations were compared and there are no significant differences between the two populations.

Action Standard 15.6 (AS15.6)

- IF satisfaction with user and group interactions mean score is below a 3.5 OR top box score is below 30% THEN recommend taking action (q10_6).

✓ Recommend taking action on the following:

- Satisfaction with user and group interactions mean is below 3.5 and top box is less than 30%.

Research Objective 15.7 (RO15.7)

- Determine satisfaction of Missouri residents with the quality of organized/supervised recreation programs.

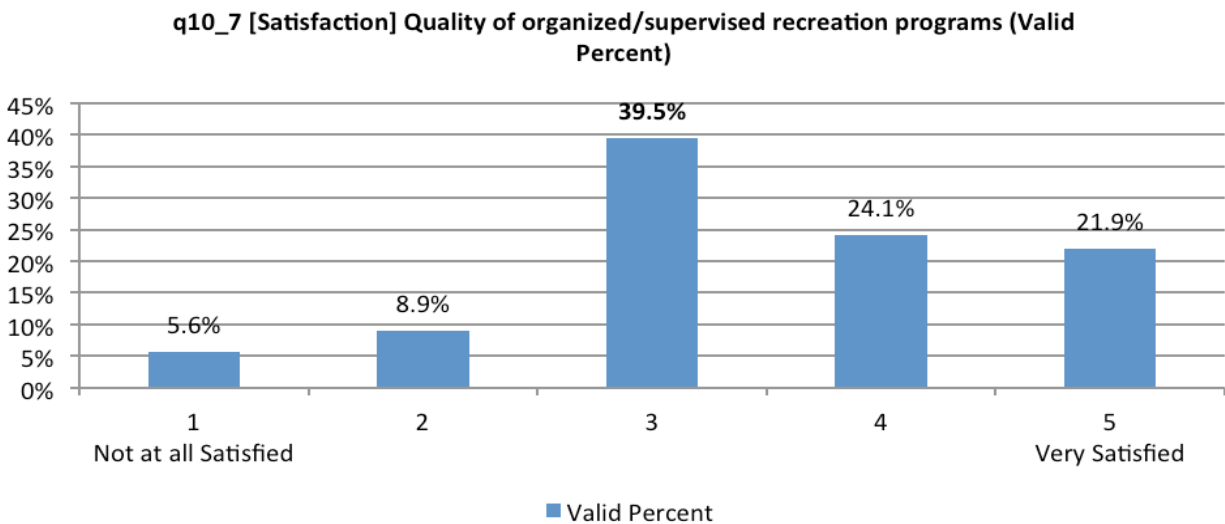
Respondents were asked how satisfied they are with the quality of organized/supervised recreation programs, using a 1 to 5 scale with 1 being “Not at all satisfied” and 5 being “Very Satisfied” (q10_7). Urban and rural data were combined and weighted (see methodology) to reflect the 70% urban/30% rural proportions in the general population of Missouri residents (Table RO15.7a, Chart RO15.7a and Appendix B: q10_7).

- 21.9% ($n_w=168$) of Missouri residents are very satisfied with the quality of organized/supervised recreation programs.
- 95% confident that overall satisfaction among Missouri residents with the quality of organized/supervised recreation programs is between 3.40 and 3.56 ($\bar{x}_w=3.48 \pm 0.078$).

Table RO15.7a. Descriptive Statistics (urban and rural combined and weighted) q10_7 [Satisfaction] Quality of organized/supervised recreation programs				
	Frequency	Mean _w	Std. Error	Std. Dev.
q10_7 Quality of organized/supervised recreation programs	768	3.48	0.04	1.097

(w) Indicates weighted score

Chart RO15.7a. Satisfaction with Quality of Organized Programs



Urban and rural populations were compared and there are no significant differences between the two populations.

Action Standard 15.7 (AS15.7)

- IF satisfaction with quality of organized/supervised recreation programs mean score is below a 3.5 OR top box score is below 30% THEN recommend taking action (q10_7).

✓ *Recommend taking action on the following:*

- Satisfaction with quality of organized/supervised recreation programs mean is less than 3.5 and top box is less than 30%.

Research Objective 15.8 (RO15.8)

- *Determine satisfaction of Missouri residents with the availability of organized/supervised outdoor recreation programs (see RO4.2).*

See Research Objective 4.2 (RO4.2).

Research Question 16 (RQ16)

- **How satisfied are Missouri residents with outdoor recreation facilities in Missouri?**

Research Objective 16.1 (RO16.1)

- *Determine overall satisfaction of Missouri residents with outdoor recreation facilities in Missouri as a whole.*

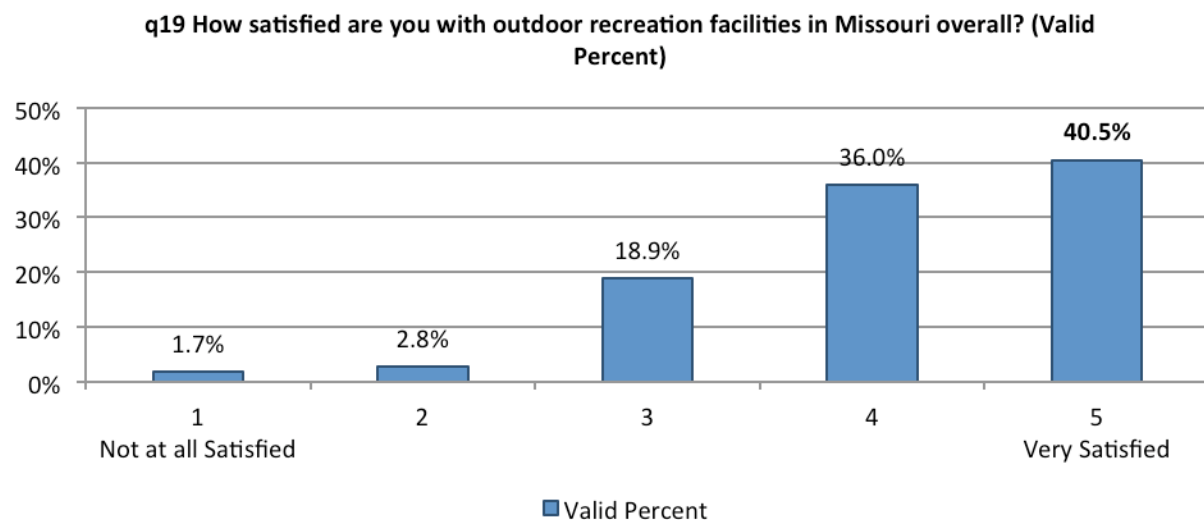
Respondents were asked how satisfied they are with outdoor recreation facilities in Missouri overall, using a 1 to 5 scale with 1 being “Not at all satisfied” and 5 being “Very Satisfied” (Table RO16.1a, Chart RO16.1a and Appendix B: q19).

- 40.5% ($n_w=305$) of Missouri residents are very satisfied overall with outdoor recreation facilities in Missouri.
- 95% confident that overall satisfaction among Missouri residents with outdoor recreation facilities in Missouri is between 4.04 and 4.18 ($\bar{x}_w=4.11 \pm 0.067$).

Table RO16.1a. Descriptive Statistics (urban and rural combined and weighted) How satisfied are you with outdoor recreation facilities in Missouri overall?				
	Frequency	Mean _w	Std. Error	Std. Dev.
q19 How satisfied are you with outdoor recreation facilities in Missouri overall?	761	4.11	0.034	0.92

(w) Indicates weighted score

Chart RO16.1a. Satisfaction with Facilities in Missouri Overall



Action Standard 16.1 (AS16.1)

- IF overall satisfaction with outdoor recreation facilities in Missouri mean score is below a 4.0 OR top box score is below 30% THEN recommend taking action (q19).

✕ *No action recommended.*

Research Objective 16.2 (RO16.2)

- Determine overall satisfaction of Missouri residents with local outdoor recreation facilities.

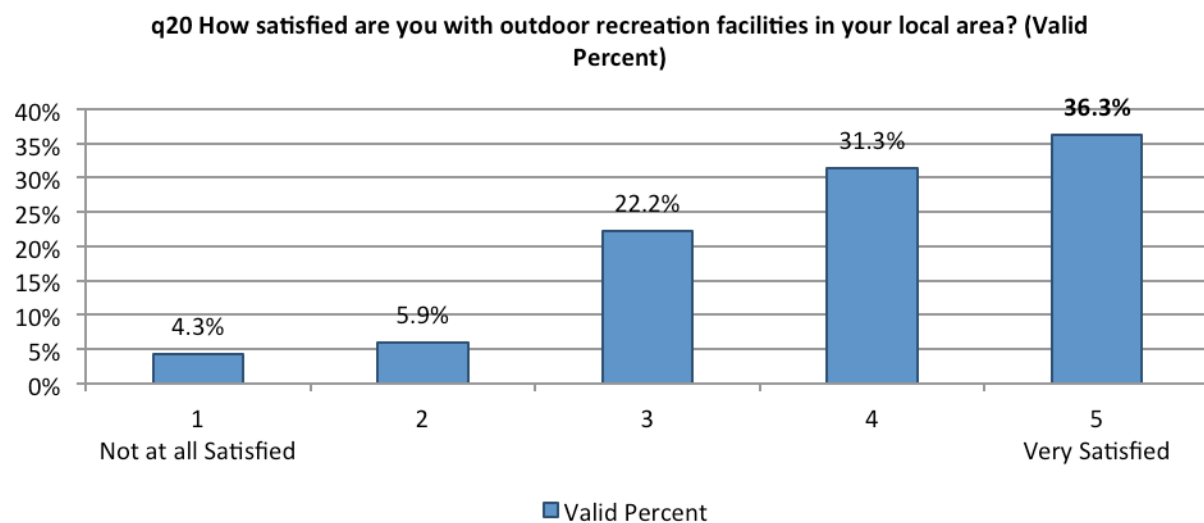
Respondents were asked how satisfied they are with outdoor recreation facilities in their local area, using a 1 to 5 scale with 1 being “Not at all satisfied” and 5 being “Very Satisfied” (Table RO16.2a, Chart RO16.2a and Appendix B: q20).

- 36.3% ($n_w=272$) of Missouri residents are very satisfied with outdoor recreation facilities in their local area.
- 95% confident that satisfaction among Missouri residents with local outdoor recreation facilities is between 3.81 and 3.97 ($\bar{x}_w=3.89 \pm 0.078$).

Table RO16.2a. Descriptive Statistics (urban and rural combined and weighted) q20 How satisfied are you with outdoor recreation facilities in your local area?				
	Frequency	Mean _w	Std. Error	Std. Dev.
q20 How satisfied are you with outdoor recreation facilities in your local area?	761	3.89	0.04	1.096

(w) Indicates weighted score

Chart RO16.2a. Satisfaction with Local Facilities



Action Standard 16.2 (AS16.2)

- IF overall satisfaction with local outdoor facilities mean score is below a 4.0 OR top box is below 30% THEN recommend taking action (q20).

✖ No action recommended.

Research Question 17 (RQ17)

- *How satisfied are Missouri residents with aspects of outdoor recreation facilities in Missouri?*

Research Objectives 17.1 (RO17.1)

- *Determine satisfaction of Missouri residents with the number of outdoor recreation facilities (see RO8.1).*

Research Objectives 17.2 (RO17.2)

- *Determine satisfaction of Missouri residents with the quality of local outdoor recreation facilities.*

Respondents were asked how satisfied they are with the quality of facilities, using a 1 to 5 scale with 1 being “Not at all satisfied” and 5 being “Very Satisfied” (Table RO17.2a, Chart RO17.2a and Appendix B: q21_2).

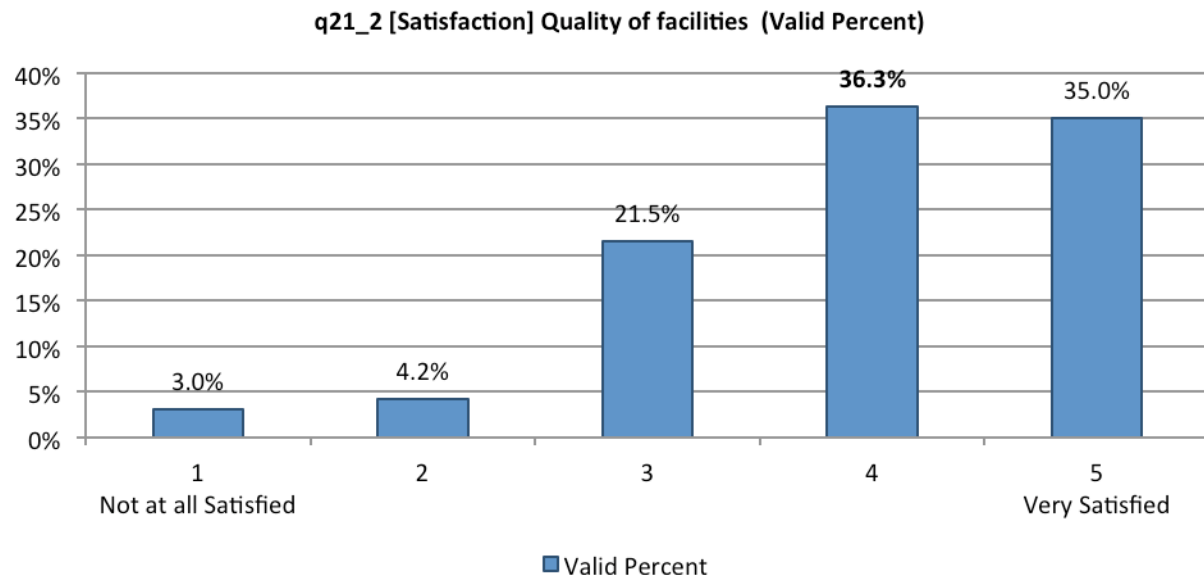
- 35.0% ($n_w=263$) of Missouri residents are very satisfied with the quality of local outdoor recreation facilities.
- 95% confident that overall satisfaction among Missouri residents with the quality of local outdoor recreation facilities is between 3.89 and 4.03 ($\bar{x}_w=3.96 \pm 0.072$).

Table RO17.2a. Descriptive Statistics (urban and rural combined and weighted)
q21_2 [Satisfaction] Quality of facilities

	Frequency	Mean _w	Std. Error	Std. Dev.
q21_2 [Satisfaction] Quality of facilities	761	3.96	0.037	1.002

(w) Indicates weighted score

Chart RO17.2a. Satisfaction with Quality of Local Facilities



Action Standard 17.2 (AS17.2)

- IF satisfaction with quality of local outdoor recreation facilities mean score is below a 3.5 OR top box score is below 30% THEN recommend taking action (q21_2).

✖ No action recommend.

Research Objectives 17.3 (RO17.3)

- Determine satisfaction of Missouri residents with the availability of local outdoor recreation facilities (see RO8.2).

Research Objectives 17.4 (RO17.4)

- Determine satisfaction of Missouri residents with the variety of local outdoor recreation facilities.

Respondents were asked how satisfied they are with the variety of facilities, using a 1 to 5 scale with 1 being “Not at all satisfied” and 5 being “Very Satisfied” (Table RO17.4a, Chart RO17.4a and Appendix B: q21_4).

- 28.1% ($n_w=211$) of Missouri residents are very satisfied with the variety of local outdoor recreation facilities.
- 95% confident that satisfaction among Missouri residents with the variety of local outdoor recreation facilities is between 3.57 and 3.73 ($\bar{x}_w=3.65 \pm 0.080$).

Table RO17.4a. Descriptive Statistics (urban and rural combined and weighted)
q21_4 [Satisfaction] Variety of facilities

	Frequency	Mean _w	Std. Error	Std. Dev.
q21_4 [Satisfaction] Variety of facilities	761	3.65	0.041	1.13

(w) Indicates weighted score

Chart RO17.4a. Satisfaction with Variety of Local Facilities



Urban and rural populations were compared and there are no significant differences between the two populations.

Action Standard 17.4 (AS17.4)

- IF satisfaction with variety of local outdoor recreation facilities mean score is below a 3.5 OR top box score is below 30% THEN recommend taking action (q21_4).

✓ *Recommend taking action on the following:*

- Satisfaction with variety of facilities top box is less than 30%.

Research Objectives 17.5 (RO17.5)

- *Determine satisfaction of Missouri residents with the safety of local outdoor recreation facilities.*

Respondents were asked how satisfied they are with the safety of facilities, using a 1 to 5 scale with 1 being “Not at all satisfied” and 5 being “Very Satisfied” (Table RO17.5a, Chart RO17.5a and Appendix B: q21_5).

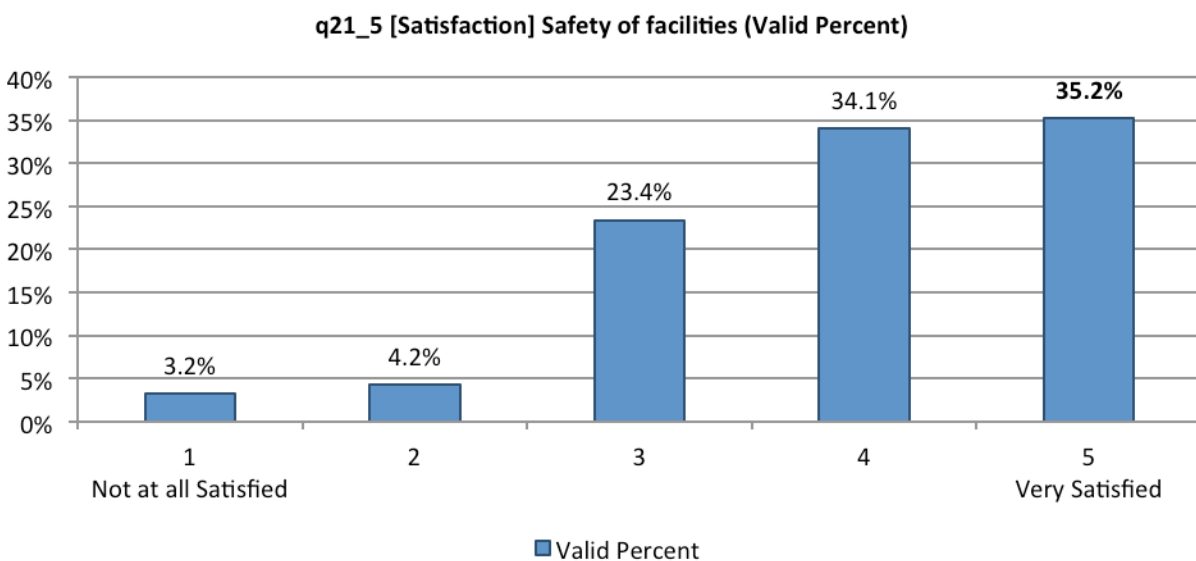
- 35.2% ($n_w=264$) of Missouri residents are very satisfied overall with the safety of local outdoor recreation facilities.
- 95% confident that satisfaction among Missouri residents with the safety of local outdoor recreation facilities is between 3.96 and 4.10 ($\bar{x}_w=4.03 \pm 0.072$).

**Table RO17.5a. Descriptive Statistics (urban and rural combined and weighted)
q21_5 [Satisfaction] Safety of facilities**

	Frequency	Mean _w	Std. Error	Std. Dev.
q21_5 [Satisfaction] Safety of facilities	761	3.94	0.037	1.019

(w) Indicates weighted score

Chart RO17.5a. Satisfaction with Safety of Local Facilities



Action Standard 17.5 (AS17.5)

- IF satisfaction with safety of local outdoor recreation facilities mean score is below a 3.5 OR top box score is below 30% THEN recommend taking action (q21_5).

✖ *No action recommended.*

Research Objectives 17.6 (RO17.6)

- *Determine satisfaction of Missouri residents with the cleanliness of local outdoor recreation facilities.*

Respondents were asked how satisfied they are the cleanliness of facilities, using a 1 to 5 scale with 1 being “Not at all satisfied” and 5 being “Very Satisfied” (Table RO17.6a, Chart RO17.6a, and Appendix B: q21_6).

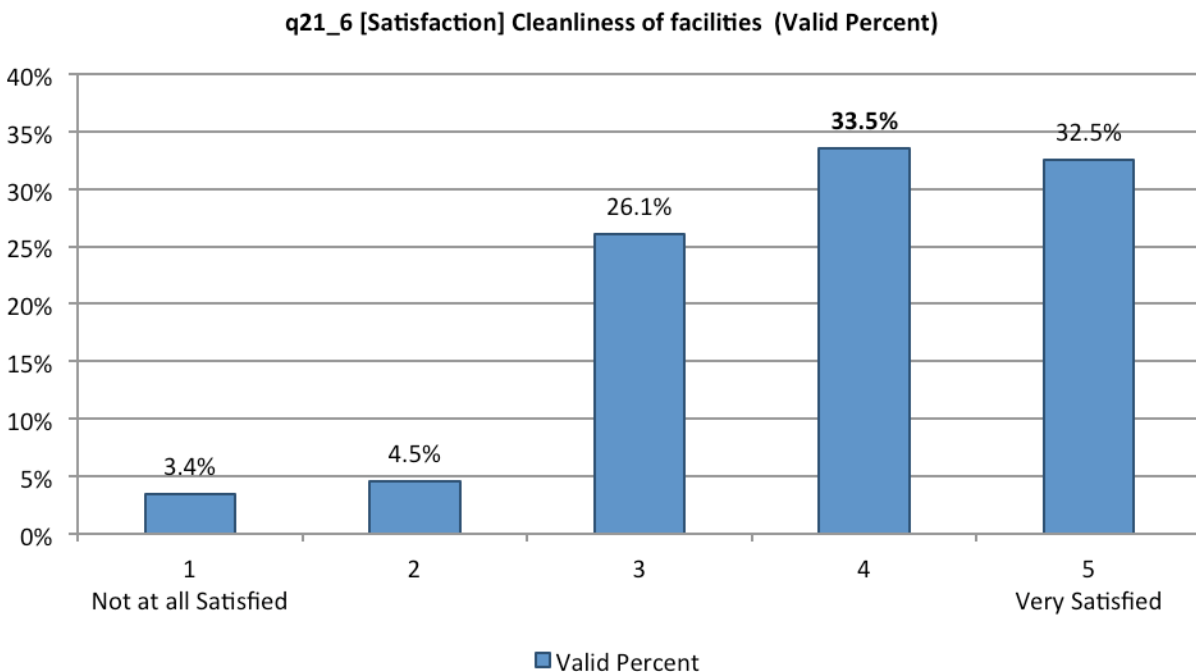
- 32.5% ($n_w=244$) of Missouri residents are very satisfied with the cleanliness of local outdoor recreation facilities.
- 95% confident that satisfaction among Missouri residents with the cleanliness of local outdoor recreation facilities is between 3.79 and 3.94 ($\bar{x}_w=3.87 \pm 0.074$).

Table RO17.6a. Descriptive Statistics (urban and rural combined and weighted)
q21_6 [Satisfaction] Cleanliness of facilities

	Frequency	Mean _w	Std. Error	Std. Dev.
q21_6 [Satisfaction] Cleanliness of facilities	761	3.87	0.038	1.028

(w) Indicates weighted score

Chart RO17.6a. Satisfaction with Cleanliness of Local Facilities



Action Standard 17.6 (AS17.6)

- IF satisfaction with cleanliness of local outdoor recreation facilities mean score is below a 3.5 OR top box score is below 30% THEN recommend taking action (q21_6).

✖ *No action recommended.*

Research Objective 17.7 (RO17.7)

- *Determine satisfaction of Missouri residents with the distance to local outdoor recreation facilities.*

Respondents were asked how satisfied they are with the distance to facilities, using a 1 to 5 scale with 1 being “Not at all satisfied” and 5 being “Very Satisfied” (Table RO17.7a, Chart RO17.7a and Appendix q21_7).

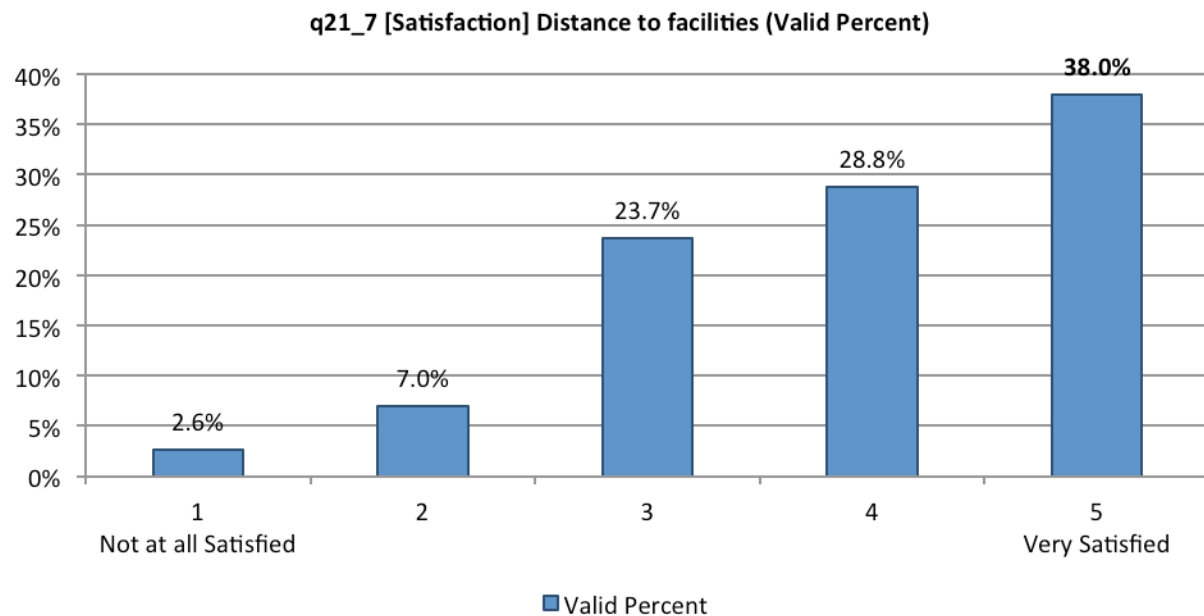
- 38% ($n_w=286$) of Missouri residents are very satisfied overall with the distance to local outdoor recreation facilities.
- 95% confident that overall satisfaction with the outdoor recreation activities in Missouri among Missouri residents is between 3.85 and 4.01 ($\bar{x}_w = 3.93 \pm 0.076$).

Table RO17.7a. Descriptive Statistics (urban and rural combined and weighted)
q21_7 [Satisfaction] Distance to facilities

	Frequency	Mean _w	Std. Error	Std. Dev.
q21_7 [Satisfaction] Distance to facilities	761	3.93	0.039	1.059

(w) Indicates weighted score

Chart RO17.7a. Satisfaction with Distance to Local Facilities



Action Standard 17.7 (AS17.7)

- IF satisfaction with distance to local outdoor recreation facilities mean score is below a 3.5 OR top box score is below 30% THEN recommend taking action (q21_7).

✖ *No action recommended.*

Research Objective 17.8 (RO17.8)

- *Determine satisfaction of Missouri residents with travel time and congestion to local outdoor recreation facilities.*

Respondents were asked how satisfied they are travel and congestion to facilities, using a 1 to 5 scale with 1 being “Not at all satisfied” and 5 being “Very Satisfied” (Table RO17.8a, Chart RO17.8a and Appendix B: q21_8).

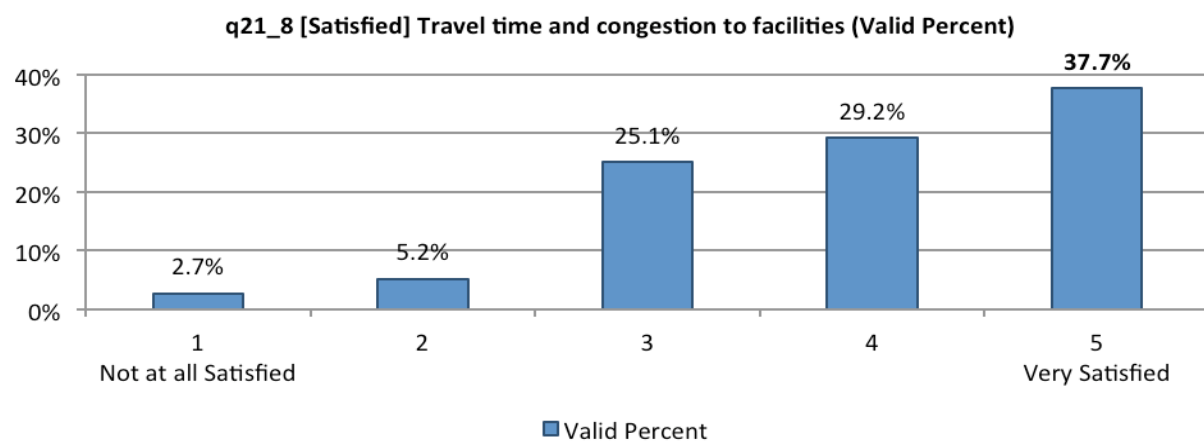
- 37.7% ($n_w=283$) of Missouri residents are very satisfied with travel time and congestion to local outdoor recreation facilities.
- 95% confident that satisfaction among Missouri residents with travel time and congestion to local outdoor recreation facilities is between 3.87 and 4.01 ($\bar{x}_w=3.94 \pm 0.074$).

**Table RO17.8a. Descriptive Statistics (urban and rural combined and weighted)
q21_8 [Satisfaction] Travel time and congestion to facilities**

	Frequency	Mean _w	Std. Error	Std. Dev.
q21_8 [Satisfied] Travel time and congestion to facilities	761	3.94	0.038	1.04

(w) Indicates weighted score

Chart RO17.8a. Satisfaction with Travel Time and Congestion to Local Facilities



Action Standard 17.8 (AS17.8)

- IF satisfaction with travel time and congestion to local outdoor recreation facilities mean score is below a 3.5 OR top box score is below 30% THEN recommend taking action (q21_8).

✖ *No action recommended.*

Research Objective 17.9 (RO17.9)

- Determine satisfaction of Missouri residents with pet/dog accommodations of local outdoor recreation facilities.

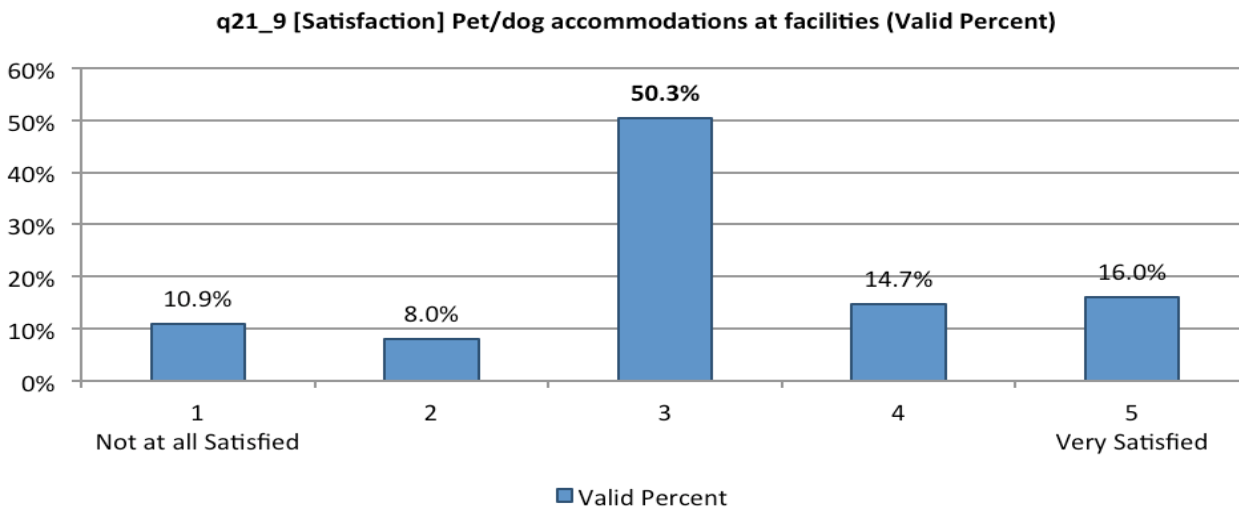
Respondents were asked how satisfied they are with pet/dog accommodations at facilities, using a 1 to 5 scale with 1 being “Not at all satisfied” and 5 being “Very Satisfied” (Table RO17.9a, Chart RO17.9a and Appendix B: q21_9).

- 16.0% ($n_w=120$) of Missouri residents are very satisfied overall with pet/dog accommodations at facilities.
- 95% confident that satisfaction among Missouri residents with pet/dog accommodations at local outdoor recreation facilities is between 3.09 and 3.25 ($\bar{x}_w=3.17 \pm 0.080$).

Table RO17.9a. Descriptive Statistics (urban and rural combined and weighted) q21_9 [Satisfaction] Pet/dog accommodations at facilities				
	Frequency	Mean _w	Std. Error	Std. Dev.
q21_9 [Satisfaction] Pet/dog accommodations at facilities	761	3.17	0.041	1.131

(w) Indicates weighted score

Chart RO17.9a. Satisfaction with Pet/Dog Accommodations at Local Facilities



Action Standard 17.9 (AS17.9)

- IF satisfaction with pet/dog accommodations of local outdoor recreation facilities mean score is below a 3.5 OR top box score is below 30% THEN recommend taking action (q21_9).

✓ Recommend taking action on the following:

- Satisfaction with pet/dog accommodations at facilities mean score is less than 3.5 and top box is less than 30%.

Research Objective 17.10 (RO17.10)

- Determine satisfaction of Missouri residents with the professionalism of local outdoor recreation employees.

Respondents were asked how satisfied they are the professionalism of outdoor recreation employees, using a 1 to 5 scale with 1 being “Not at all satisfied” and 5 being “Very Satisfied” (Table RO17.10a, Chart RO17.10a and Appendix B: q21_10).

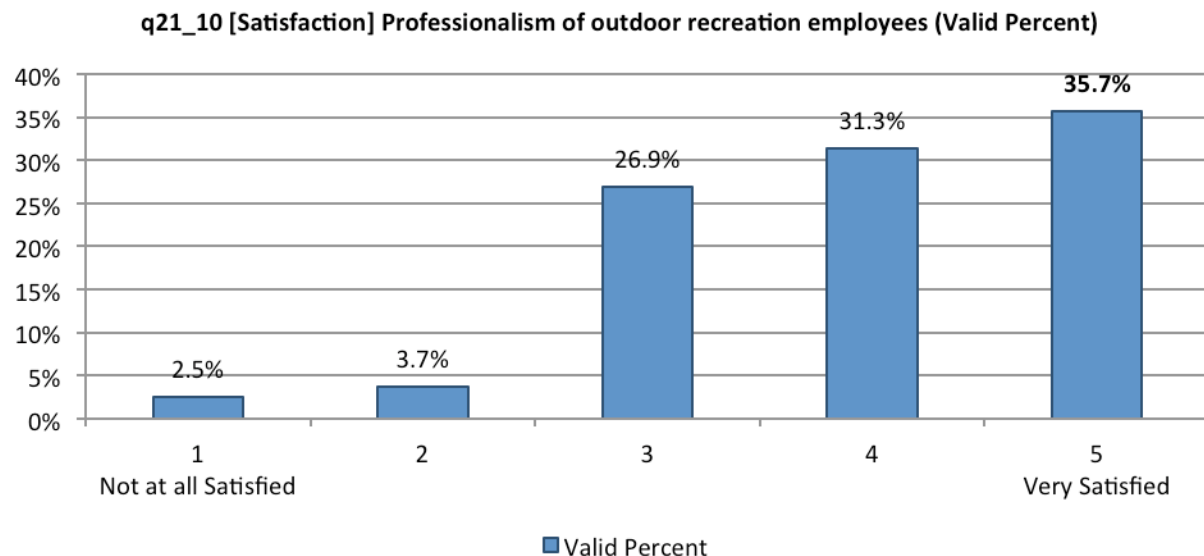
- 35.7% ($n_w=268$) of Missouri residents are very satisfied overall with the professionalism of local outdoor recreation employees.
- 95% confident that satisfaction among Missouri residents with the professionalism of local outdoor recreation employees is between 3.87 and 4.01 ($\bar{x}_w=3.94 \pm 0.070$).

Table RO17.10a. Descriptive Statistics (urban and rural combined and weighted)
q21_10 [Satisfaction] Professionalism of outdoor recreation employees

	Frequency	Mean _w	Std. Error	Std. Dev.
q21_10 [Satisfaction] Professionalism of outdoor recreation employees	761	3.94	0.036	0.997

(w) Indicates weighted score

Chart RO17.10a. Satisfaction with Professionalism of Staff at Local Facilities



Action Standard 17.10 (AS17.10)

- IF satisfaction with professionalism of local outdoor recreation employees mean score is below a 3.5 OR top box score is below 30% THEN recommend taking action (q21_10).

✖ No action recommended.

Research Question 18 (RQ18)

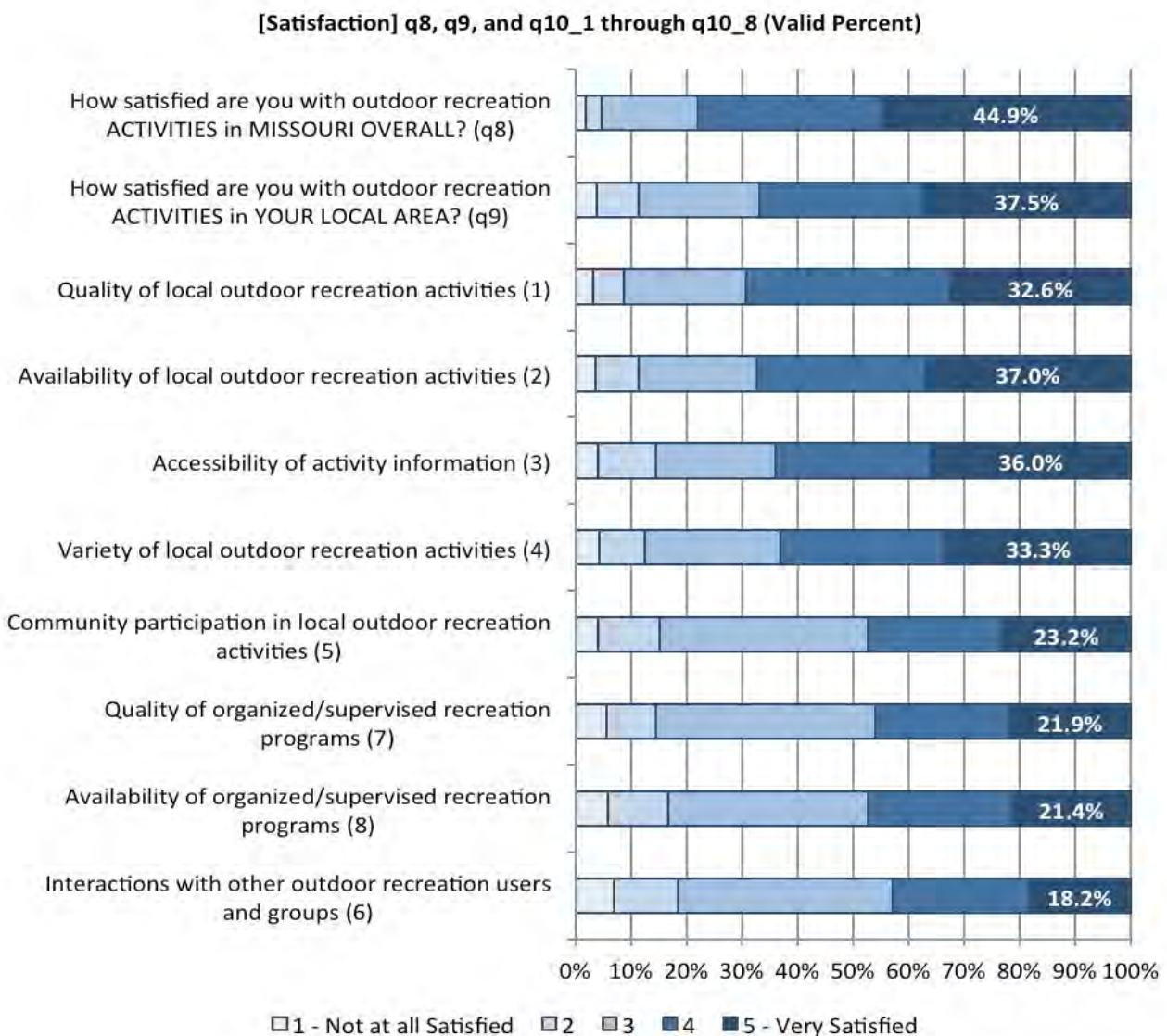
- *What is the relative importance of various aspects of outdoor recreation in Missouri compared to their performance?*

Research Objective 18.1 (RO18.1)

- *Determine relative importance of various aspects of outdoor recreation activities.*

Overall satisfaction with outdoor recreation activities in Missouri (q8) and satisfaction with outdoor recreation in the local area (q9) were both correlated with satisfaction with various aspects of outdoor recreation activities in Missouri (q10_1 through q10_8) and the correlations were squared in order to determine the relative importance of each measure (Chart RO18.1a, Table RO18.1a, Table RO18.1b, and Appendix B: Relative Importance).

Chart RO18.1a. Satisfaction with Various Aspects of Outdoor Recreation Activities



**Table RO18.1a. Descriptive Statistics (urban and rural combined and weighted)
Relative Importance (Correlated against q8 [Satisfaction] Activities in Missouri overall)**

	Relative Importance	Mean Score _w
How satisfied are you with outdoor recreation ACTIVITIES in MISSOURI OVERALL? (q8)	1	4.17
How satisfied are you with outdoor recreation ACTIVITIES in YOUR LOCAL AREA? (q9)	0.332	3.89
Variety of local outdoor recreation activities (q10_4)	0.278	3.8
Availability of local outdoor recreation activities (q10_2)	0.267	3.89
Quality of local outdoor recreation activities (q10_1)	0.264	3.9
Accessibility of activity information (q10_3)	0.249	3.82
Quality of organized/supervised recreation programs (q10_7)	0.201	3.48
Availability of organized/supervised recreation programs (q10_8)	0.191	3.46
Interactions with other outdoor recreation users and groups (q10_6)	0.147	3.36
Community participation in local outdoor recreation activities (q10_5)	0.123	3.51

(w) Indicates weighted score

**Table RO18.1b. Descriptive Statistics (urban and rural combined and weighted)
Relative Importance (Correlated against q9 [Satisfaction] Activities in local area)**

	Relative Importance	Mean Score _w
How satisfied are you with outdoor recreation ACTIVITIES in YOUR LOCAL AREA? (q9)	1	3.89
Quality of local outdoor recreation activities (q10_1)	0.479	3.9
Availability of local outdoor recreation activities (q10_2)	0.468	3.89
Variety of local outdoor recreation activities (q10_4)	0.438	3.8
How satisfied are you with outdoor recreation ACTIVITIES in MISSOURI OVERALL? (q8)	0.332	4.17
Accessibility of activity information (q10_3)	0.303	3.82
Availability of organized/supervised recreation programs (q10_8)	0.294	3.46
Quality of organized/supervised recreation programs (q10_7)	0.27	3.48
Community participation in local outdoor recreation activities (q10_5)	0.241	3.51
Interactions with other outdoor recreation users and groups (q10_6)	0.195	3.36

(w) Indicates weighted score

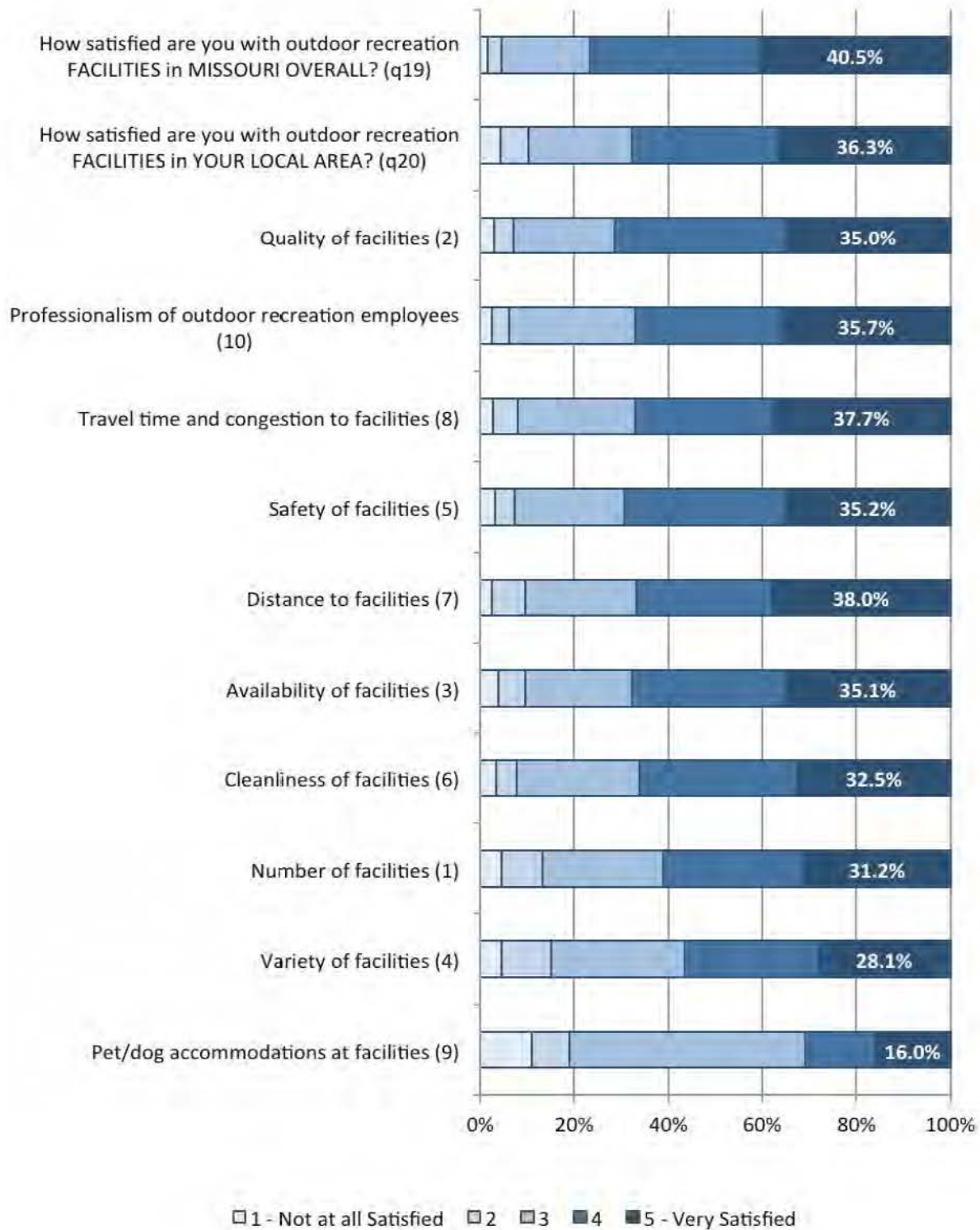
Research Objective 18.2 (RO18.2)

- Determine relative importance of various aspects of outdoor recreation facilities.

Overall satisfaction with outdoor recreation facilities in Missouri (q19) and satisfaction with outdoor recreation facilities in the local area (q20) were both correlated with satisfaction with various aspects of outdoor recreation facilities in Missouri (q21_1 through q21_10) and the correlations were squared in order to determine the relative importance of each measure (Chart RO18.2a, Table RO18.2a, Table RO18.2b and Appendix B: Relative Importance).

Chart R018.2a. Satisfaction with Various Aspects of Outdoor Recreation Facilities

[Satisfaction] q19, q20, and q21_1 through q21_10 (Valid Percent)



**Table RO18.2a. Descriptive Statistics (urban and rural combined and weighted)
Relative Importance (Correlated against q19 [Satisfaction] Facilities in Missouri overall)**

	Relative Importance	Mean Score _w
How satisfied are you with outdoor recreation FACILITIES in MISSOURI OVERALL? (q19)	1	4.11
How satisfied are you with outdoor recreation FACILITIES in YOUR LOCAL AREA? (q20)	0.429	3.89
Quality of facilities (q21_2)	0.375	3.96
Availability of facilities (q21_3)	0.362	3.89
Variety of facilities (q21_4)	0.36	3.65
Number of facilities (q21_1)	0.298	3.75
Distance to facilities (q21_7)	0.264	3.93
Safety of facilities (q21_5)	0.262	3.94
Cleanliness of facilities (q21_6)	0.252	3.87
Travel time and congestion to facilities (q21_8)	0.241	3.94
Professionalism of outdoor recreation employees (q21_10)	0.207	3.94
Pet/dog accommodations at facilities (q21_9)	0.089	3.17

(w) Indicates weighted score

**Table RO18.2b. Descriptive Statistics (urban and rural combined and weighted)
Relative Importance (Correlated against q19 [Satisfaction] Facilities in Missouri overall)**

	Relative Importance	Mean Score _w
How satisfied are you with outdoor recreation FACILITIES in YOUR LOCAL AREA?	1	3.89
Availability of facilities (q21_3)	0.442	3.89
How satisfied are you with outdoor recreation FACILITIES in MISSOURI OVERALL? (q19)	0.429	3.96
Variety of facilities (q21_4)	0.416	3.65
Number of facilities (q21_1)	0.415	3.75
Quality of facilities (q21_2)	0.386	3.96
Distance to facilities (q21_7)	0.379	3.93
Travel time and congestion to facilities (q21_8)	0.28	3.94
Safety of facilities (q21_5)	0.238	3.94
Cleanliness of facilities (q21_6)	0.221	3.87
Professionalism of outdoor recreation employees (q21_10)	0.189	3.94
Pet/dog accommodations at facilities (q21_9)	0.086	3.17

(w) Indicates weighted score

Research Objective 18.3 (RO18.3)

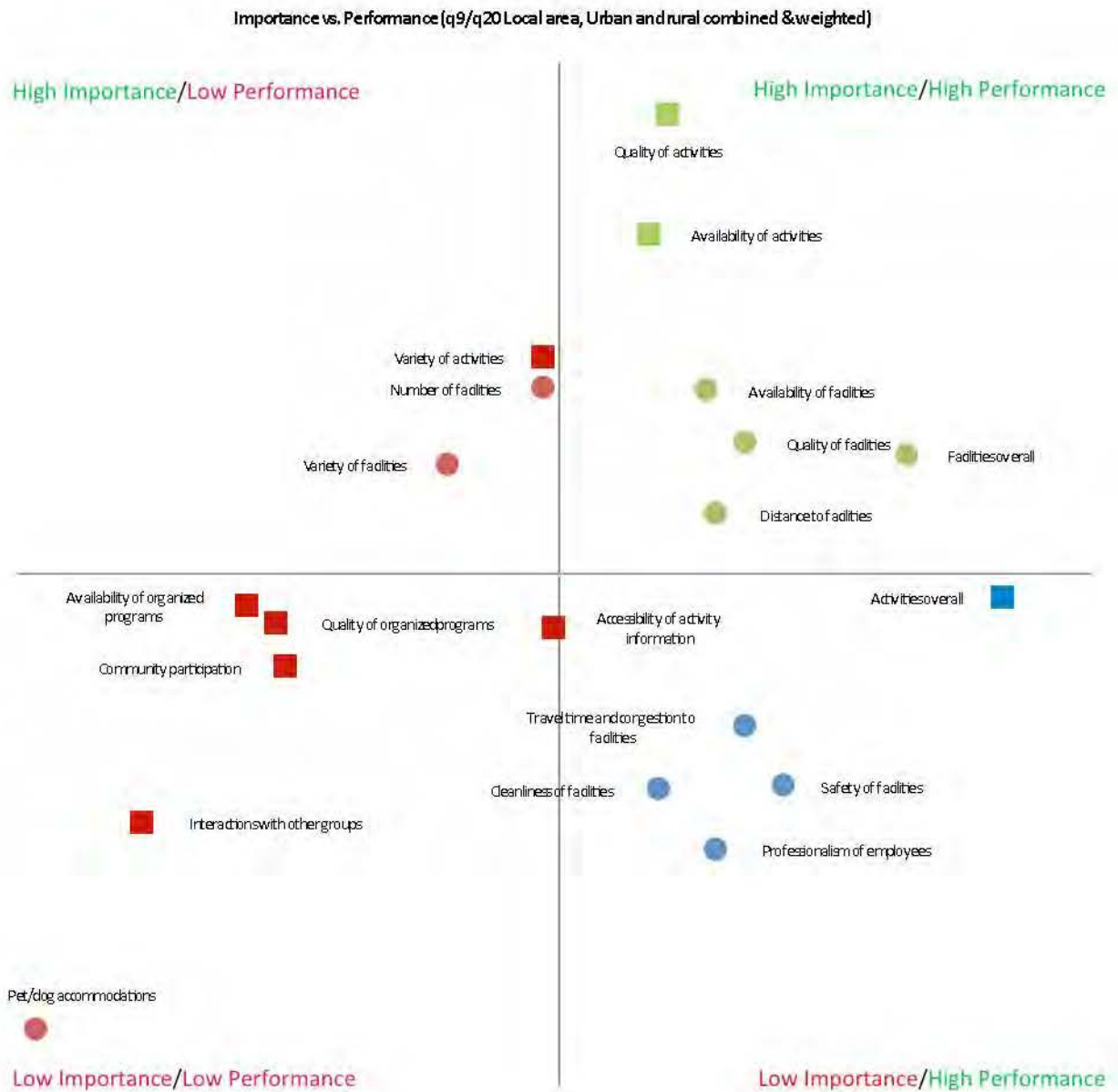
- Determine the relative performance of various aspects of outdoor recreation facilities and activities compared to their performance.

Relative importance was charted vs. performance (satisfaction) was charted for both Missouri overall (Chart RO18.3a) and the local area (Chart RO18.3b) across all activity and facility aspects.

Chart RO18.3a. Importance/Performance – Missouri Overall



Chart RO18.3b. Importance/Performance – Local Area



Action Standard 18.3.1 (AS18.1)

- IF relative importance score is ABOVE the 50th percentile AND satisfaction mean score is ABOVE the 50th percentile THEN maintain performance and maintain emphasis (q8, q9, q10_1 through q10_8, q19, q19, and q21_1 through q21_10).

✓ Recommend maintaining performance of the following:

- Both on the local level and in Missouri overall:
 - Quality of activities
 - Availability of activities
 - Quality of facilities
 - Availability of facilities
 - Distance to facilities
- In Missouri overall:
 - Variety of activities
 - Quality of activities
 - Safety of facilities

Action Standard 18.3.2 (AS18.2)

- IF relative importance score is ABOVE the 50th percentile AND satisfaction mean score is BELOW the 50th percentile THEN emphasize increasing performance (q8, q9, q10_1 through q10_8, q19, q19, and q21_1 through q21_10).

✓ Recommend increasing performance on the following:

- Both on the local level and in Missouri overall:
 - Number of facilities
 - Variety of facilities
- In local areas:
 - Variety of activities

Action Standard 18.3.3 (AS18.3)

- IF relative importance score is BELOW the 50th percentile AND satisfaction mean score is ABOVE the 50th percentile THEN deemphasize and shift resources to elements determined by AS18.1 (q8, q9, q10_1 through q10_8, q19, q19, and q21_1 through q21_10).

✓ Recommend deemphasizing the following:

- Both on the local level and in Missouri overall:
 - Professionalism of outdoor recreation employees
 - Cleanliness of facilities
 - Travel time and congestion to facilities
- In Missouri overall:
 - Accessibility of activity information

- In local areas:
 - Safety of facilities

Action Standard 18.3.4 (AS18.4)

- IF relative importance score is BELOW the 50th percentile AND satisfaction mean score is BELOW the 50th percentile THEN take action but deemphasize (q8, q9, q10_1 through q10_8, q19, q19, and q21_1 through q21_10).

✓ *Recommend taking action as well as deemphasizing the following:*

- Both on the local level and in Missouri overall:
 - Interactions with outdoor recreation activity users and groups
 - Pet/dog accommodations at facilities
 - Community participation in local outdoor recreation activities
 - Availability of organized/supervised outdoor recreation programs
 - Quality of organizes/supervised outdoor recreation programs
- In local areas:
 - Accessibility of activity information

Management Problem

- *What are some opinions and perceptions of Missouri residents regarding outdoor recreation in Missouri?*

Research Question 19 (RQ19)

- *How do Missouri residents perceive outdoor recreation in Missouri?*

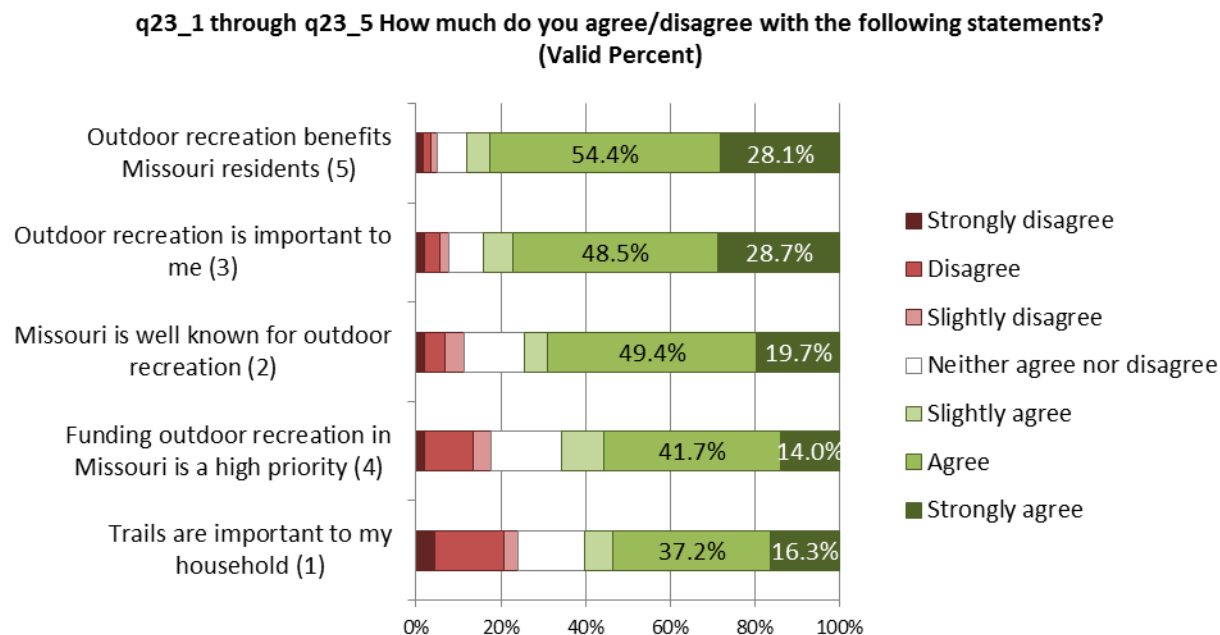
Research Objective 19.1 (RO19.1)

- *Determine perceptions of Missouri residents regarding outdoor recreation in Missouri.*

Respondents were asked how much they agree or disagree with a number of statements regarding outdoor recreation, using a seven-point Likert scale with the following categories: Strongly agree, agree, slightly agree, neither agree nor disagree, slightly disagree, disagree and strongly disagree (Chart RO19.1a and Appendix B: q23).

- More than 75% of Missouri residents agree or strongly agree that outdoor recreation benefits Missouri residents (75.5%, $n_w=619$).
 - More than 25% of Missouri residents strongly agree that outdoor recreation benefits Missouri residents (28.1%, $n_w=211$).
- More than 75% of Missouri residents agree or strongly agree that outdoor recreation is important to them (77.7%, $n_w=591$).
 - More than 25% of Missouri residents strongly agree that outdoor recreation is important to them (28.7%, $n_w=215$).
- More than 60% of Missouri residents agree that Missouri is well known for outdoor recreation (69.1%, $n_w=579$).
- More than 50% of Missouri residents agree that funding outdoor recreation in Missouri is a high priority (55.7%, $n_w=418$).
- More than 50% of Missouri residents agree that trails are important to their household (53.5%, $n_w=401$).

Chart RO19.1a. Perceptions of Missourians Regarding Outdoor Recreation



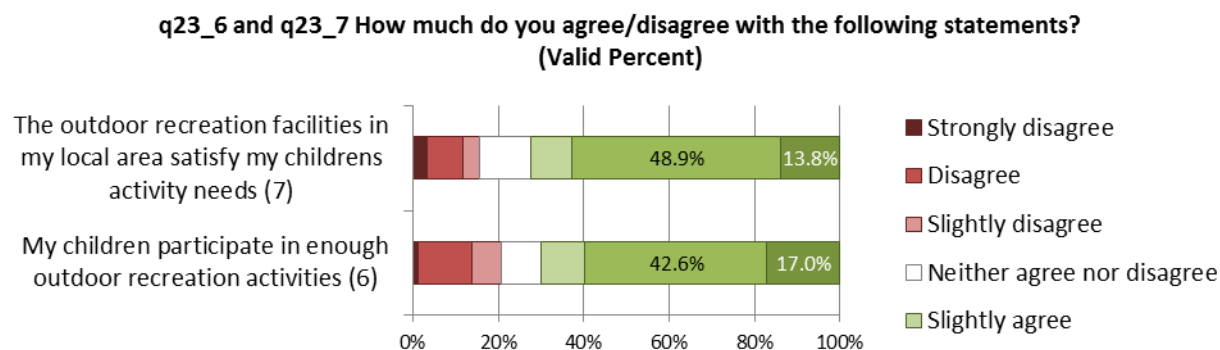
Research Objective 19.2 (RO19.2)

- Determine perceptions of Missouri parents with regard to their children's outdoor recreation activities.

Respondents with children under 18 in the household were asked how much they agree or disagree with a number of statements regarding outdoor recreation, using a seven-point Likert scale with the following categories: Strongly agree, agree, slightly agree, neither agree nor disagree, slightly disagree, disagree and strongly disagree (Chart RO19.2a and Appendix B: q23).

- More than 60% of Missouri residents agree or strongly agree that the outdoor recreation facilities in their local area satisfy their children's activity needs (62.7%, $n_w=172$).
- More than 50% of Missouri residents agree or strongly agree that their children participate in enough outdoor recreation activities (59.6%, $n_w=164$).
-

Chart RO19.2a. Satisfaction of Missouri Parents Regarding Facilities and Children's Activity



Management Problem

- Are there any critical issues or improvements regarding outdoor recreation in Missouri among Missouri residents?

Research Question 20 (RQ20)

- *Are there any crucial issues regarding outdoor recreation in Missouri among Missouri residents?*

Research Objective 20.1 (RO20.1)

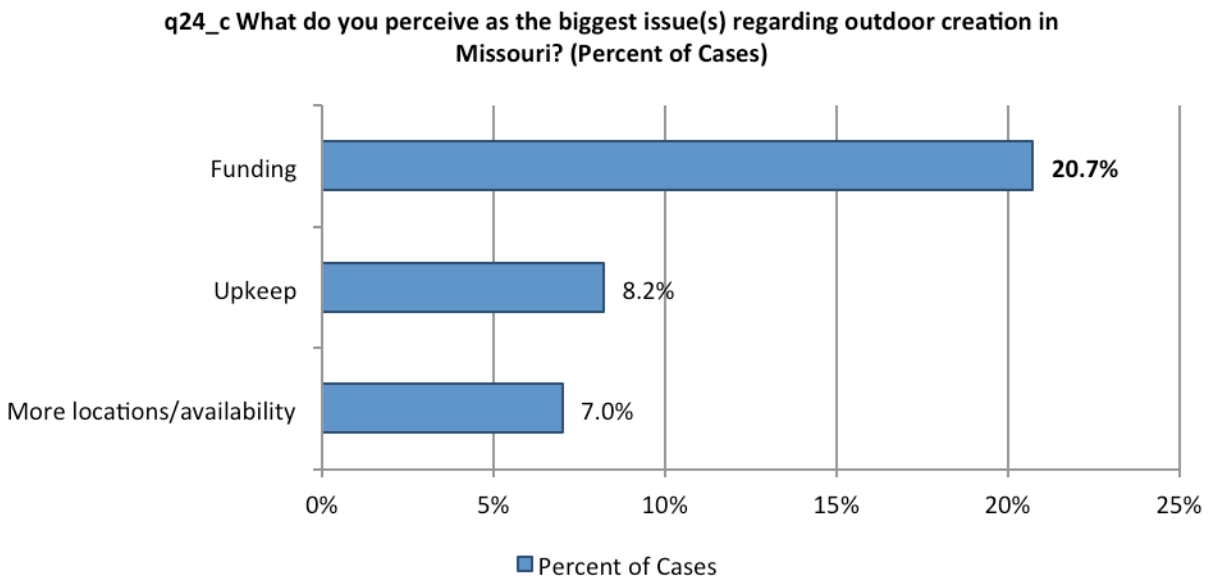
- Determine perceived issues regarding outdoor recreation among Missouri residents.

Respondents were asked what they perceive as the biggest issue(s) regarding outdoor recreation in Missouri. Open ended responses were coded and tallied for all responses mentioned in at least 1% of cases (Table RO20.1a, Chart RO20.1a and Appendix \$q24_c).

Table RO20.1a Frequencies (coded open end* – urban and rural combined) \$q24_c What do you perceive as the biggest issue(s) regarding outdoor recreation in Missouri?				
		Responses		Percent of Cases
		N _w	Percent	
Biggest issues in Missouri?(a)	Funding	159	19.20%	20.70%
	Upkeep	63	7.60%	8.20%
	More locations/availability	54	6.50%	7.00%
	Better communication about facilities/activities	36	4.40%	4.70%
	Safety/security	35	4.20%	4.50%
	Better variety of activities	31	3.80%	4.10%
	Getting people to use it	20	2.40%	2.60%
	Getting people to clean up after themselves	13	1.60%	1.70%
	Regulate the amount of people in the parks	11	1.30%	1.40%
	Better/more access	10	1.20%	1.30%
	Weather/heat	9	1.10%	1.10%
	Wildlife preserves/wildlife watching/nature	8	1.00%	1.00%
	More affordable/free	8	0.90%	1.00%
a Group				

(w) Indicates weighted score; *Raw open ends available in Appendix C: \$q24

Chart RO20.1a. Perceptions of Missourians Regarding Issues Affecting Outdoor Recreation



Action Standard 20.1 (AS20.1)

- IF more than 5% of respondents mention a perceived issue THEN take action (q24).

✓ *Recommend taking action on the following:*

- Funding (20.7%, $n_w=159$).
- Upkeep (8.20%, $n_w=63$).
- More locations/availability (7.0%, $n_w=54$).

Research Question 21 (RQ21)

- *Are there any suggestions from Missouri residents on how to improve outdoor recreation in Missouri?*

Research Objective 21.1 (RO21.1)

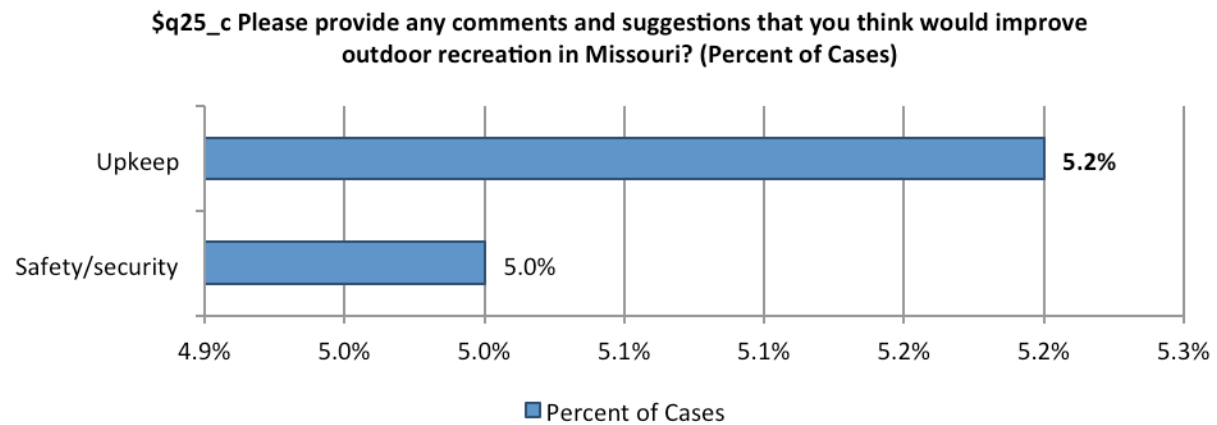
- *Determine respondent suggestions for improving outdoor recreation in Missouri among Missouri residents.*

Respondents were asked to please provide any comments and suggestions that they think would improve outdoor recreation in Missouri. Open ended responses were coded and tallied for all responses mentioned in at least 1% of cases (Table RO21.1a, Chart RO21.1a and Appendix B: \$q25_c).

Table RO21.1a Frequencies (coded open end* – urban and rural combined) \$q25_c Please provide any comments and suggestions that you think would improve outdoor recreation in Missouri?				
		Responses		Percent of Cases
		N	Percent	
Comments of suggestions?(a)	Upkeep	40	4.80%	5.20%
	Safety/security	38	4.60%	5.00%
	Funding	35	4.20%	4.60%
	Better communication about facilities/activities	26	3.10%	3.40%
	Camping	13	1.50%	1.70%
	Better/more access	12	1.40%	1.50%
	Youth related activities	11	1.30%	1.40%
	More affordable/free	11	1.30%	1.40%
	Water park/pool	10	1.20%	1.40%
	Educational classes	10	1.10%	1.30%
	Walking trail	9	1.10%	1.20%
	more locations/availability	8	1.00%	1.00%
	Better variety of activities	8	0.90%	1.00%
a Group				

(w) Indicates weighted score; *Raw open ends available in Appendix C: \$q25

Chart RO21.1a. Suggestions to Improve Outdoor Recreation



Action Standard 21.1 (AS21.1)

- IF more than 5% of respondents mention a suggestion THEN take action (q25).

✓ *Recommend taking action on the following:*

- Upkeep (5.2%, $n_w=40$).
- Safety/Security (5.0%, $n_w=38$).

Recommendations

SYNERGY/PRI/JPA recommends taking action on the following:

Research Question 4: *How satisfied are Missouri residents with the availability of outdoor recreation activities?*

✓ *Recommend taking action on the following:*

- **Action Standard 4.2 (AS4.2)**
 - Improve satisfaction with organized recreation programs.

Research Question 5: *What types of outdoor recreation activities do Missouri residents want to see more of in their local area?*

✓ *Recommend taking action on the following:*

- **Action Standard 5.1.1 (AS5.1.1)**
 - Walking trails
 - Biking trails
 - Youth related activities

Research Question 6: *How available are outdoor recreation facilities in Missouri?*

✓ *Recommend taking action on the following:*

- **Action Standard 6.2 (AS6.2)**
 - Walkable streets and sidewalks
 - Less available to rural residents compared to urban residents
 - Dog Parks.
 - ATV/ORV riding areas
 - Less available to urban residents compared to rural residents
 - Outdoor aquatic complexes
- **Action Standard 6.3 (AS6.3)**
 - Among the 55.5% ($n_w=406$) of Missouri residents that use gardens at least once per year, 21.2% ($n_w=86$) indicated supply was either way too few or too few.
 - Among the 47.0% ($n_w=345$) of Missouri residents that use trails at least once per year, 25.3% ($n_w=81$) indicated supply was either way too few or too few.
 - Among the 39.2% ($n_w=286$) of Missouri residents that use outdoor swimming pools at least once per year, 26.6% ($n_w=77$) indicated supply was either way too few or too few.
 - Among the 32.6% ($n_w=243$) of Missouri residents that use camping sites at least once per year, 26.6% ($n_w=65$) indicated supply was either way too few or too few.
 - Among the 23.7% ($n_w=167$) of Missouri residents that use outdoor aquatic complexes at least once per year, 21.2% ($n_w=36$) indicated supply was either way too few or too few.
 - Among the 19.9% ($n_w=145$) of Missouri residents that use target shooting sites at least once per year, 27.9% ($n_w=39$) indicated supply was either way too few or too few.
 - Among the 14.0% ($n_w=99$) of Missouri residents that use ATV/ORV riding areas at least once per year, 36.1% ($n_w=36$) indicated supply was either way too few or too few.
 - Among the 12.3% ($n_w=91$) of Missouri residents that use outdoor basketball courts at least once per year, 39.1% ($n_w=36$) indicated supply was either way too few or too few.

- Among the 9.7% ($n_w=72$) of Missouri residents that use tennis courts at least once per year, 28.0% ($n_w=20$) indicated supply was either way too few or too few.
- Among the 9.3% ($n_w=68$) of Missouri residents that use Frisbee/disk golf courses at least once per year, 34.4% ($n_w=23$) indicated supply was either way too few or too few. **Research Question 7:** *How likely are Missouri residents to use currently unavailable facilities if they were made available?*

✓ *Recommend taking action on the following:*

- **Action Standard 7.1 (AS7.1)**
 - Walkable streets and sidewalks

Research Question 9: *What types of outdoor recreation facilities do Missouri residents want to see more of in their local area?*

✓ *Recommend taking action on the following:*

- **Action Standard 9.1 (AS9.1)**
 - Walking trails
 - Water park/pool
 - Parks

Research Question 10: *How often do Missouri residents participate in outdoor recreation activities?*

✓ *Recommend taking action on the following:*

- **Action Standard 10.1 (AS10.1)**
 - Walking
 - Higher participation among urban residents compared to rural residents.
 - Family gatherings
 - Driving for sightseeing
 - Gardening
 - Picnicking
 - Outdoor swimming
 - Wildlife observation/birding
 - Fishing
 - Higher participation among rural residents compared to urban residents
 - Boating, sailing, canoeing and kayaking
 - Higher participation among rural residents compared to urban residents
 - Playgrounds
 - Camping in a campground
 - Bicycling.
 - Higher participation among urban residents compared to rural residents
 - Dog Walking
 - Hiking
 - Wildlife/outdoor photography
 - Target shooting
 - Higher participation among rural residents compared to urban residents.
 - Baseball
 - Higher participation among urban residents compared to rural residents.

- Hunting
 - Higher participation among rural residents compared to urban residents
- Golf
 - Higher participation among urban residents compared to rural residents
- Running/jogging
- Outdoor basketball
- Backpacking
- ATV/off road riding
 - Higher participation among rural residents compared to urban residents

Research Question 11: *Are activity levels of various outdoor recreation activities in Missouri increasing, decreasing, or remaining the same among Missouri residents?*

✓ *Recommend taking action on the following:*

- **Action Standard 11.2 (AS11.2)**
 - Fishing.
 - Camping in a campground.
 - Bicycling.
 - Baseball.
 - Golf.
 - Running/jogging.
 - Soccer.

Research Question 15: *How satisfied are Missouri residents with various aspects of outdoor recreation activities in Missouri?*

✓ *Recommend taking action on the following:*

- **Action Standard 15.5 (AS15.5)**
 - Improve satisfaction with community participation in outdoor recreation.
- **Action Standard 15.6 (AS15.6)**
 - Improve satisfaction with outdoor recreation user and group interactions.
- **Action Standard 15.7 (AS15.7)**
 - Improve satisfaction with the quality of organized/supervised recreation programs.

Research Question 17: *How satisfied are Missouri residents with aspects of outdoor recreation facilities in Missouri?*

✓ *Recommend taking action on the following:*

- **Action Standard 17.4 (AS17.4)**
 - Improve satisfaction with variety of facilities.
- **Action Standard 17.9 (AS17.9)**
 - Improve satisfaction with pet/dog accommodations at facilities.

Research Question 18: *What is the relative importance of aspects of outdoor recreation in Missouri compared to their performance?*

✓ *Recommend taking action on the following:*

- **Action Standard 18.3.1 (AS18.1)**
 - *Recommend maintaining performance of the following:*
 - Both on the local level and in Missouri overall:
 - Quality of activities
 - Availability of activities
 - Quality of facilities
 - Availability of facilities
 - Distance to facilities
 - In Missouri overall:
 - Variety of activities
 - Quality of activities
 - Safety of facilities
- **Action Standard 18.3.2 (AS18.2)**
 - *Recommend increasing performance on the following:*
 - Both on the local level and in Missouri overall:
 - Number of facilities
 - Variety of facilities
 - In local areas:
 - Variety of activities
- **Action Standard 18.3.3 (AS18.3)**
 - *Recommend deemphasizing the following:*
 - Both on the local level and in Missouri overall:
 - Professionalism of outdoor recreation employees
 - Cleanliness of facilities
 - Travel time and congestion to facilities
 - In Missouri overall:
 - Accessibility of activity information
 - In local areas:
 - Safety of facilities
- **Action Standard 18.3.4 (AS18.4)**
 - *Recommend taking action as well as deemphasizing the following:*
 - Both on the local level and in Missouri overall:
 - Interactions with outdoor recreation activity users and groups
 - Pet/dog accommodations at facilities
 - Community participation in local outdoor recreation activities
 - Availability of organized/supervised outdoor recreation programs
 - Quality of organizes/supervised outdoor recreation programs
 - In local areas:
 - Accessibility of activity information

Research Question 20: *Are there any crucial issues regarding outdoor recreation in Missouri among Missouri residents?*

✓ *Recommend taking action on the following:*

- **Action Standard 20.1 (AS20.1)**
 - Funding
 - Upkeep
 - More locations/availability

Research Question 21: *Are there any suggestions from Missouri residents on how to improve outdoor recreation in Missouri?*

✓ *Recommend taking action on the following:*

- **Action Standard 21.1 (AS21.1)**
 - Upkeep
 - Safety/security

Appendix A – Questionnaires

On-Site Screener

Introduction

Hello, my name is (INTERVIEWER NAME) and I'm with Pragmatic Research/Synergy Group, Inc. calling on behalf of Missouri State Parks. In order to plan and improve outdoor recreation in Missouri, we're conducting a brief, 10 - 15 min telephone survey among Missouri residents. All participation is appreciated, your answers will be combined and submitted as a whole and therefore your individual identity and any answers you give will remain anonymous. May I please speak with the male or female head of the household over the age of 21?

- ☐ Yes (CONTINUE IF ON THE LINE, OTHERWISE REPEAT INTRO)
- ☐ No (THANK AND TERMINATE)
- ☐ Unavailable (SCHEDULE CALLBACK)

Do you have 10-15 minutes to go through the questionnaire?

- ☐ Yes
- ☐ No (SCHEDULE CALLBACK)
- ☐ REFUSED (THANK AND TERMINATE)

Screener

S1. Respondent Gender (DO NOT READ LIST UNLESS NECESSARY TO DETERMINE GENDER)

- ☐ Male
- ☐ Female

S2. Are you currently a Missouri resident?

- ☐ Yes
- ☐ No (Terminate)

S4. What is your marital status? Are you.... (READ LIST. SELECT ONE)

- ☐ Single
- ☐ Married
- ☐ Divorced
- ☐ Other

S5. What is your age? Are you... (READ LIST. SELECT ONE)

- | | |
|-------------------------------|---|
| <input type="radio"/> 21 – 24 | <input type="radio"/> 55 – 64 |
| <input type="radio"/> 25 – 34 | <input type="radio"/> Over 65 |
| <input type="radio"/> 35 – 44 | <input type="radio"/> Refused (DO NOT READ) |
| <input type="radio"/> 45 – 54 | |

S6. What was your household income during the past year? (READ LIST. SELECT ONE)

- | | |
|---|---|
| <input type="radio"/> Less than \$20,000 | <input type="radio"/> \$75,000 - \$99,999 |
| <input type="radio"/> \$20,000 - \$34,999 | <input type="radio"/> \$100,000 or more |
| <input type="radio"/> \$35,000 - \$49,999 | <input type="radio"/> Refused (DO NOT READ) |
| <input type="radio"/> \$50,000 - \$74,000 | |

S7. What is your highest completed level of education? (READ LIST. SELECT ONE)

- | | |
|--|---|
| <input type="radio"/> Less than High School | <input type="radio"/> 4 year undergraduate degree |
| <input type="radio"/> High School Graduate or equivalent | <input type="radio"/> Graduate degree |
| <input type="radio"/> Some College | <input type="radio"/> Ph.D./M.D. |
| <input type="radio"/> 2 year/associates Degree | <input type="radio"/> Refused (DO NOT READ) |

S8. Which of the following best describes your ethnicity? (READ LIST. SELECT ONE)

- | | |
|--|---|
| <input type="radio"/> White/Caucasian | <input type="radio"/> Asian |
| <input type="radio"/> Black/African American | <input type="radio"/> Other (DO NOT READ) |
| <input type="radio"/> Hispanic | <input type="radio"/> Refused (DO NOT READ) |

S9. Which of the following best describes your employment status?

- | | |
|--|---|
| <input type="radio"/> Employed part time | <input type="radio"/> Homemaker |
| <input type="radio"/> Employed full time | <input type="radio"/> Retired |
| <input type="radio"/> Student and employed | <input type="radio"/> Unemployed |
| <input type="radio"/> Student and not employed | <input type="radio"/> Refused (DO NOT READ) |

S10. How many people in the following age groups live in your household?

Category	Number
Children < 5:	_____
Children 6 – 12:	_____
Children 13 – 18:	_____
Adults 19 – 34:	_____
Adults 35 – 54:	_____
Adults 55 and older:	_____

S11. Do you own any of the following types of pets? (SELECT ALL THAT APPLY)

- ☐ Horses ☐ Dogs

S12. What is your Zip code?

Zip Code: _____

S13. Using a scale from 1 to 5, where 1 is **not at all familiar** and 5 is **very familiar**, how familiar are you with outdoor recreation in your area? **Outdoor recreation includes Public parks, recreation areas, trails, playgrounds, lakes, outdoor sports facilities, etc.**

Not at all Familiar			Very Familiar		
1	2	3	4	5	

S14. When was the last time you participated in any outdoor recreation activity in Missouri? Have you participated in any outdoor recreation activities within the past... (READ LIST. SELECT ONE)

- | | |
|--------------------------------|---|
| <input type="radio"/> Week | <input type="radio"/> 6 months |
| <input type="radio"/> Month | <input type="radio"/> Year |
| <input type="radio"/> 3 months | <input type="radio"/> More than a year/Don't Know/Refused |

S15. (IF **S14 = 6** ASK **S15** THEN TERMINATE) Why haven't you visited any public parks, recreation areas, or facilities in Missouri in the past year? (SELECT ALL THAT APPLY)

- | | | |
|---|---|---|
| <input type="checkbox"/> Age concerns | <input type="checkbox"/> Not enough time | <input type="checkbox"/> Safety concerns |
| <input type="checkbox"/> Health concerns | <input type="checkbox"/> Cost / economic concerns | <input type="checkbox"/> Other |
| <input type="checkbox"/> Disability | <input type="checkbox"/> Prefer indoor activities, e.g. TV, movies, and video games | <input type="checkbox"/> Don't Know |
| <input type="checkbox"/> Lack of interest | <input type="checkbox"/> Lack of transportation | <input type="checkbox"/> Don't know where any are located |

Mail-Back Questionnaire

Thinking about your household's outdoor recreation activities **during the week** (i.e. Monday through Thursday)...

Q1. During the past year, how far did you usually travel to participate in recreation activities **during the week** (i.e. Monday through Thursday)? (READ LIST. SELECT ONE)

- | | |
|-------------------------------------|--|
| <input type="radio"/> 0 – 4 miles | <input type="radio"/> 50 – 99 miles |
| <input type="radio"/> 5 – 9 miles | <input type="radio"/> 100 miles or more |
| <input type="radio"/> 10 – 19 miles | <input type="radio"/> Don't Know / Refused (DO NOT READ) |
| <input type="radio"/> 20 – 49 miles | |

Q2. How many hours does your household participate in outdoor recreation **during the week** (i.e. Monday through Thursday)? (READ LIST. SELECT ONE)

- | | | |
|--|------------------------------------|--|
| <input type="radio"/> Less than 30 minutes | <input type="radio"/> 3 – 4 hours | <input type="radio"/> 13 - 16 hours |
| <input type="radio"/> 30 minutes to 1 hour | <input type="radio"/> 5 – 8 hours | <input type="radio"/> More than 16 hours |
| <input type="radio"/> 1 – 2 hours | <input type="radio"/> 9 – 12 hours | <input type="radio"/> Don't Know / Refused |

Now, thinking about your household's outdoor recreation activities **during the weekend** (i.e. Friday through Sunday)...

Q3. During the past year, how far did you usually travel to participate in recreation activities **during the weekend** (Friday through Sunday)? (READ LIST. SELECT ONE)

- | | |
|-------------------------------------|--|
| <input type="radio"/> 0 – 4 miles | <input type="radio"/> 50 – 99 miles |
| <input type="radio"/> 5 – 9 miles | <input type="radio"/> 100 miles or more |
| <input type="radio"/> 10 – 19 miles | <input type="radio"/> Don't Know / Refused (DO NOT READ) |
| <input type="radio"/> 20 – 49 miles | |

Q4. How many hours does your household participate in outdoor recreation **during the weekend** (i.e. Friday through Sunday)? (READ LIST. SELECT ONE)

- | | | |
|--|------------------------------------|--|
| <input type="radio"/> Less than 30 minutes | <input type="radio"/> 3 – 4 hours | <input type="radio"/> 13 - 16 hours |
| <input type="radio"/> 30 minutes to 1 hour | <input type="radio"/> 5 – 8 hours | <input type="radio"/> More than 16 hours |
| <input type="radio"/> 1 – 2 hours | <input type="radio"/> 9 – 12 hours | <input type="radio"/> Don't Know / Refused |

ASK Q5 AND Q6 FOR ALL ACTIVITIES

Q5. How often does your household participate in [INSERT ACTIVITY]? Daily, at least 4- 5 times per week, 2 – 3 times per week, weekly, 2 – 3 times per month, monthly, every 2 - 3 months, every 4 – 6 months, or less than once every 6 months?

Activity	Daily	4-5x per Week	2-3x per Week	Weekly	2-3x per Month	Monthly	Every 2-3 Month	Every 4- 6 Months	< 1x per 6 Months	Never
Wildlife observation/ birding	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Atv/off road riding	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Backpacking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Baseball	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bicycling (road)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Boating, sailing, canoeing & kayaking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Camping in a campground	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dog walking										
Driving for sightseeing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Family Gatherings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fishing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Football	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Frisbee/Disk golf	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gardening	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Golf	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hiking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Horseback riding	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hunting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Kickball	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mountain Biking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Outdoor Basketball	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Outdoor swimming	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Picnicking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Playgrounds	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rock climbing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Running / jogging	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Skateboarding	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Skiing, other water sports	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Soccer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Softball	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Target shooting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tennis, racquetball, handball	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Volleyball	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Walking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Wildlife / outdoor photography	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Winter sports	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q6. And based on your household's activity level do see your household's participation in [INSERT ACTIVITY] increasing, decreasing, or staying the same over the next five years? For each of the following **activities**, would you say you expect usage to decrease a lot, decrease, decrease a little, not change, increase a little, increase, or increase a lot?

Activity	Decrease a Lot	Decrease	Decrease a Little	No Change	Increase a Little	Increase	Increase a Lot
Wildlife observation/ birding	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Atv/off road riding	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Backpacking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Baseball	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bicycling (road)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Boating, sailing, canoeing & kayaking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Camping in a campground	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dog walking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Driving for sightseeing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Family Gatherings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fishing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Football	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Frisbee/Disk golf	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gardening	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Golf	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hiking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Horseback riding	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hunting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Kickball	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Mountain Biking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Outdoor Basketball	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Outdoor swimming	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Picnicking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Playgrounds	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rock climbing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Running / jogging	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Skateboarding	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Skiing, other water sports	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Soccer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Softball	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Target shooting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tennis, racquetball, handball	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Volleyball	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Walking (no dog)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Wildlife / outdoor photography	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Winter sports	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q7. Have you or any member of your household participated in any other **outdoor** recreation **activities** in your local area in the past year? (RECORD VERBATIM.)

Q8. Using a scale from 1 to 5, where 1 is **not at all satisfied** and 5 is **very satisfied**, how satisfied are you with outdoor recreation **activities** in Missouri **overall**?

Not at all Satisfied					Very Satisfied
1	2	3	4	5	

Q9. Using a scale from 1 to 5, where 1 is **not at all satisfied** and 5 is **very satisfied**, how satisfied are you with outdoor recreation **activities** in **your local area**?

Not at all Satisfied					Very Satisfied
1	2	3	4	5	

10. Using a scale from 1 to 5, where 1 is **not at all satisfied** and 5 is **very satisfied**, how satisfied are you with the following aspects of outdoor recreation **activities** in Missouri?

Attribute	Not at all Satisfied			Very Satisfied	
Quality of local outdoor recreation activities	1	2	3	4	5
Availability of local outdoor recreation activities	1	2	3	4	5
Accessibility of activity information	1	2	3	4	5

Variety of local outdoor recreation activities	1	2	3	4	5
Community participation in local outdoor recreation activities	1	2	3	4	5
Interactions with other outdoor recreation users and groups	1	2	3	4	5
Quality of organized / supervised recreation programs	1	2	3	4	5
Availability of organized / supervised recreation programs	1	2	3	4	5

Q11. (IF **Q10.2** < 5 OR **Q10.4** < 5) What **outdoor** recreation activities would you like to see more of in your local area? (RECORD VERBATIM. PROBE)

Q12. Based on your household's lifestyle, do you see your household's **overall** outdoor recreation usage increasing, decreasing, or staying the same over the next five years?

Decrease a lot	Decrease	Decrease a little	No change	Increase a little	Increase	Increase a lot
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

ASK Q13 –Q15 FOR ALL FACILITIES (WHEN APPLICABLE)

Have you or any member of your household used any of the following types of outdoor recreation facilities at least once in the past year, assuming they are available?

Q13. How often do you or a member of your household use [INSERT FACILITY]? Would you say daily, 2 – 5x per week, weekly, 2 – 3x per month, monthly, every 2 – 3 months, 1x per 6 months, < 1x per year/Never, or is [INSERT FACILITY] not available in your local area?

Facility	2-5x per Week		2-3x per Month		Every 2- 3 Months		1x per 6 Months		< 1x per Year/ Never		Not Available	Don't Know
	Daily	Weekly	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly		
Atv/orv riding areas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Baseball / softball fields	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Boating and water sports access sites	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Camping sites	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dog Parks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fishing sites	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Football fields	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Frisbee golf courses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gardens	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Golf courses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Historic / education	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

sites										
Hunting sites	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lakes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Local parks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Multi-use fields	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
National or state forests	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
National parks or monuments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nature parks/areas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Outdoor aquatic complexes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Outdoor basketball courts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Outdoor swimming pools	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Picnic areas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Playgrounds	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rivers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Skate parks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Soccer fields	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sports complexes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
State parks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Target shooting sites	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tennis courts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Trails	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Volleyball courts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Walkable streets or sidewalks in my neighborhood	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Wildlife areas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q14. (IF Q13 > 1x per year/Never) And how would you rate the supply of [INSERT FACILITY] in your area?
 Would you say there are way too many, too many, slightly too many, slightly too few, too few, way too few, or just about the right number of [INSERT FACILITY]?

Facility	Way too Few	Too Few	Slightly too Few	About Right	Slightly too Many	Too many	Way too many
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Atv/orv riding areas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Baseball / softball fields	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Boating and water sports access sites	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Camping sites	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dog Parks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fishing sites	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Football fields	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Frisbee golf courses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gardens	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Golf courses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Historic / education sites	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hunting sites	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lakes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Local parks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Multi-use fields	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
National or state forests	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
National parks or monuments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nature parks/areas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Outdoor aquatic complexes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Outdoor basketball courts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Outdoor swimming pools	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Picnic areas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Playgrounds	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rivers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Skate parks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Soccer fields	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sports complexes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
State parks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Target shooting sites	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tennis courts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Trails	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Volleyball courts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Walkable streets or sidewalks in my neighborhood	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Wildlife areas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q15. (IF **Q13** = Not available) And now using a 1 to 5 scale, where 1 is **not at all likely** and 5 is **very likely**, and assuming [INSERT FACILITY] were available in your area, how likely would you or a member of your household be to use [INSERT FACILITY]?

Facility	Not at all Likely				Very Likely
Atv/orv riding areas	1	2	3	4	5
Baseball / softball fields	1	2	3	4	5
Boating and water sports access sites	1	2	3	4	5
Camping sites	1	2	3	4	5
Dog Parks	1	2	3	4	5
Fishing sites	1	2	3	4	5
Football fields	1	2	3	4	5
Frisbee golf courses	1	2	3	4	5
Gardens	1	2	3	4	5
Golf courses	1	2	3	4	5
Historic / education sites	1	2	3	4	5
Hunting sites	1	2	3	4	5
Lakes	1	2	3	4	5
Local parks	1	2	3	4	5
Multi-use fields	1	2	3	4	5
National or state forests	1	2	3	4	5
National parks or monuments	1	2	3	4	5
Nature parks/areas	1	2	3	4	5
Outdoor aquatic complexes	1	2	3	4	5
Outdoor basketball courts	1	2	3	4	5
Outdoor swimming pools	1	2	3	4	5
Picnic areas	1	2	3	4	5
Playgrounds	1	2	3	4	5
Rivers	1	2	3	4	5
Skate parks	1	2	3	4	5
Soccer fields	1	2	3	4	5
Sports complexes	1	2	3	4	5
State parks	1	2	3	4	5
Target shooting sites	1	2	3	4	5
Tennis courts	1	2	3	4	5
Trails	1	2	3	4	5
Volleyball courts	1	2	3	4	5
Walkable streets or sidewalks in my neighborhood	1	2	3	4	5
Wildlife areas	1	2	3	4	5

Q16. Have you or any member of your household visited any other **outdoor** recreation **facilities** in your local area in the past year? (RECORD VERBATIM.)

--

Q17. How close is your residence to an outdoor recreation **facility such as a park, playground or trail**? (READ LIST. SELECT ONE)

- | | | |
|--|------------------------------------|--|
| <input type="radio"/> Less than 1 mile | <input type="radio"/> 5 – 6 miles | <input type="radio"/> More than 10 miles |
| <input type="radio"/> 1 – 2 miles | <input type="radio"/> 7 – 8 miles | <input type="radio"/> Don't know (DO NOT READ) |
| <input type="radio"/> 3 – 4 miles | <input type="radio"/> 9 – 10 miles | |

Q18. What type of **facility** is it? (DO NOT READ LIST UNLESS YOU NEED TO CLARIFY. SELECT ONE)

<input type="checkbox"/> Atv/orv riding area	<input type="checkbox"/> Nature park/area
<input type="checkbox"/> Baseball / softball fields	<input type="checkbox"/> Outdoor aquatic complex
<input type="checkbox"/> Boating and water sports access sites	<input type="checkbox"/> Outdoor basketball court
<input type="checkbox"/> Camping sites	<input type="checkbox"/> Outdoor swimming pool
<input type="checkbox"/> Dog Park	<input type="checkbox"/> Picnic area
<input type="checkbox"/> Fishing site	<input type="checkbox"/> Playgrounds
<input type="checkbox"/> Football field	<input type="checkbox"/> River
<input type="checkbox"/> Frisbee golf course	<input type="checkbox"/> Skate parks
<input type="checkbox"/> Garden	<input type="checkbox"/> Soccer fields
<input type="checkbox"/> Golf course	<input type="checkbox"/> Sports complex
<input type="checkbox"/> Historic / education site	<input type="checkbox"/> State park
<input type="checkbox"/> Hunting site	<input type="checkbox"/> Target shooting site
<input type="checkbox"/> Lake	<input type="checkbox"/> Tennis court
<input type="checkbox"/> Local park	<input type="checkbox"/> Trail
<input type="checkbox"/> Multi-use field	<input type="checkbox"/> Volleyball court
<input type="checkbox"/> National or state forest	<input type="checkbox"/> Walkable street or sidewalk in my neighborhood
<input type="checkbox"/> National parks or monument	<input type="checkbox"/> Wildlife area

Q19. Using a scale from 1 to 5, where 1 is **not at all satisfied** and 5 is **very satisfied**, how satisfied are you with outdoor recreation **facilities** in Missouri **overall**?

Not at all Satisfied				Very Satisfied	
1	2	3	4	5	

Q20. Using a scale from 1 to 5, where 1 is **not at all satisfied** and 5 is **very satisfied**, how satisfied are you with outdoor recreation **facilities** in **your local area**?

Not at all Satisfied				Very Satisfied	
1	2	3	4	5	

Q21. Using a scale from 1 to 5, where 1 is **not at all satisfied** and 5 is **very satisfied**, how satisfied are you with the following aspects of local outdoor recreation **facilities** in Missouri?

Attribute	Not at all Satisfied			Very Satisfied	
	1	2	3	4	5
Number of facilities	1	2	3	4	5
Quality of facilities	1	2	3	4	5
Availability of facilities	1	2	3	4	5
Variety of facilities	1	2	3	4	5
Safety of facilities	1	2	3	4	5
Cleanliness of facilities	1	2	3	4	5
Distance to facilities	1	2	3	4	5
Travel time and congestion to facilities	1	2	3	4	5
Pet / dog accommodations at facilities	1	2	3	4	5
Professionalism of outdoor recreation employees	1	2	3	4	5

Q22. (IF Q21.1 < 5 OR Q21.3 < 5 OR Q21.4 < 5) What **outdoor** recreation **facilities** would you like to see more of in your local area? (RECORD VERBATIM. PROBE)

Q23a. Please tell me how strongly you agree or disagree with the following statements regarding outdoor recreation in Missouri. For each of the following statements, would you say you strongly agree, agree, slightly agree, neither agree nor disagree, slightly disagree, disagree, or strongly disagree?

Statement	Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree
Missouri is [not] known as the trail state [R]	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Missouri is [not] well known for its outdoor recreation activities [R]	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Outdoor recreation is [not] important to me [R]	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Funding outdoor recreation in Missouri is a high priority	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Outdoor recreation benefits Missouri residents	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q23b. (IF S10.1 > 0 OR S10.2 > 0 OR S10.3 > 0 ASK Q23b.1 AND Q23b.2)

Statement	Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree
My children [do not] participate in enough outdoor recreation activities [R]	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The outdoor recreation facilities in my local area [do not] satisfy my children's activity needs [R]	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q24. What do you perceive as the biggest issue(s) regarding outdoor recreation in Missouri? (RECORD VERBATIM. PROBE.)

Q25. Please provide any comments or suggestions that you think would improve outdoor recreation in Missouri. (RECORD VERBATIM. PROBE.)

That was the last question. Thank you for your time.
(THANK AND TERMINATE)

Missouri SCORP Professionals Survey

2013-2017 Statewide Comprehensive Outdoor
Recreation Plan

Chris Sinnard, Pragmatic Research

Synergy/PRI/JPA
Synergy Group
Pragmatic Research, Inc.
James Pona Associates

9/12/2011

*A 2011 survey of outdoor recreation professionals in the state of Missouri, conducted as part of the
2013-2017 Statewide Comprehensive Outdoor Recreation Plan (SCORP)*

Executive Summary

This study of outdoor recreation trends and issues in the state of Missouri was commissioned by the Missouri Department of Natural Resources - Division of State Parks to fulfill the federal requirements for the 2012-2017 Statewide Comprehensive Outdoor Recreation Plan (SCORP). The SCORP is a five-year plan, for the years of 2013 through 2017, for meeting the recreational needs of the citizens of the State of Missouri.

The objectives of this study, conducted through a statewide telephone survey of outdoor recreation professionals and local communities, were to identify and assess critical issues, priorities and obstacles related to outdoor recreation facilities and activities in the state of Missouri; and to quantify and assess facility availability, demand and popularity; support components; needed improvements; and unmet recreational needs of various age groups, now and in the future.

This quantitative research study aims to:

- Collect pertinent information pertaining to outdoor recreation in the State of Missouri
- Provide recommendations for further action based on research findings

The key findings and recommendations of this study are:

- **Trails, Playgrounds and Multi-use fields** have shown the greatest increases in demand, are expected to grow in popularity and are in greatest need of improvement.
- **Picnic areas, gardens and soccer fields** also are increasing in popularity but are not in need of improvement.
- **Camping sites, outdoor basketball courts, historic/education sites, boating and water sport access sites, tennis courts and target shooting sites** need improvement but are not increasing as much in popularity.
- **Skate parks and dog parks** were most often mentioned as “other” outdoor recreation facilities in need of improvement.
- **Soccer fields** are increasing in popularity and are in greater demand than **baseball/softball fields, football fields, outdoor basketball courts, golf courses, tennis courts, and target shooting sites**.
- **Hunting sites, golf courses, volleyball courts, target shooting sites, tennis courts, and outdoor basketball courts, and fishing sites** scored low on all demand and popularity measures.
- **13 to 18 year olds have the most unmet needs** because of the difficulty of getting and keeping them interested. Sports fields, water parks/pools and skateboard parks are the most popular activities among 13 to 18 year olds.
- **Trails** are by far the most popular outdoor recreation facility among adults, increasing in popularity as they age.
- **Public transportation** to outdoor recreation in Missouri is inadequate, scoring the lowest of all support-related components measured.
- **Handicapped accessibility** scored high in adequacy, following by **drinking water, restrooms and parking**.
- **Future funding and funding obstacles** are seen as the most critical issues facing outdoor recreation professionals, even greater among rural respondents.
- **Greatest obstacles** to outdoor recreation improvement include **lack of a consistent funding system, availability of future parkland, lack of education, and low priority/support for recreation**.
- **High priorities** include **education and increasing funding for maintenance and operations**.
- **Local crime and safety concerns** are not considered major obstacles to improving outdoor recreation in Missouri.

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Background and Research Objectives

Background: This study was conducted for the Missouri Department of Natural Resources, Division of State Parks (hereinafter referred to as the state agency), the agency responsible for the management of Missouri's state parks, to fulfill the federal requirements of the 2013-2017 Missouri SCORP.

The SCORP is a five-year plan, for the years of 2013 through 2017, for meeting the recreational needs of the citizens of the State of Missouri. One requirement of the 2013-2017 Missouri SCORP was to develop a survey of outdoor recreation professionals and providers in order to identify critical issues of statewide importance, and to identify trends and issues impacting the future of outdoor recreation in the State of Missouri.

The state agency contracted the joint venture team of Synergy Group/Pragmatic Research, Inc./James Pona Associates (hereinafter referred to as Synergy/PRI/JPA) to conduct a telephone study among recreation professionals and providers.

Research Problem: Identify critical issues and trends of statewide importance impacting the future of outdoor recreation in Missouri.

Research Objectives: The objectives of this study were to identify and assess critical issues, priorities and obstacles related to outdoor recreation facilities and activities in the state of Missouri; and to quantify and assess facility availability, demand and popularity; support components; needed improvements; and unmet recreational needs of various age groups, now and in the future. These objectives were addressed through eight research questions (tested through 18 survey questions) as outlined below:

- **Research Question 1:** *How available are different types of outdoor recreation facilities in Missouri?*
 - **Research Objectives:**
 - RO1.1 Determine the availability of local outdoor recreation facilities in Missouri.
 - RO1.2 Determine local demand for outdoor recreation facilities in Missouri.
- **Research Question 2:** *What types of outdoor recreation facilities in Missouri are in need of improvement?*
 - **Research Objectives:**
 - RO2.1 Determine the level of improvement needed for outdoor recreation facilities in Missouri.
- **Research Question 3:** *What types of outdoor recreation facilities and activities are popular in Missouri?*
 - **Research Objectives:**
 - RO3.1 Determine the popularity of local outdoor recreation facilities in Missouri over the past five years.
 - RO3.2 Determine the popularity of local outdoor recreation facilities in Missouri in the next five years.
 - RO3.3 Determine which outdoor recreation activities in Missouri are popular among different age ranges.
 - RO3.4 Determine which outdoor recreation activities in Missouri are popular among families
 - RO3.5 Determine the outdoor recreation activities in Missouri that are both popular and in need of improvement.
 - RO3.6 Determine any other outdoor recreation facilities or activities in Missouri that are popular.

- **Research Question 4:** *How adequate are local support components related to outdoor recreation in Missouri?*
 - **Research Objectives:**
 - RO4.1 Determine the adequacy of public restroom facilities related to outdoor recreation in Missouri.
 - RO4.2 Determine the adequacy of parking in relation to outdoor recreation in Missouri.
 - RO4.3 Determine the adequacy of handicap accessibility in relation to outdoor recreation in Missouri.
 - RO4.4 Determine the adequacy of drinking water facilities in relation to outdoor recreation in Missouri.
 - RO4.5 Determine the adequacy of public transportation to outdoor recreation facilities in Missouri.
 - RO4.6 Determine other potential inadequacies related to outdoor recreation facilities in Missouri.
- **Research Question 5:** *How large are outdoor recreation priorities in Missouri?*
 - **Research Objectives:**
 - RO5.1 Determine if increasing funding for outdoor recreation is a high priority in local communities.
 - RO5.2 Determine if maintenance of existing facilities is a high priority in local communities.
 - RO5.3 Determine if education is a high priority in local communities.
 - RO5.4 Determine if improving communication is a high priority in local communities.
 - RO5.5 Determine if improving marketing and public relations efforts are a high priority in local communities.
 - RO5.6 Determine if increased preservation effort is a high priority in local communities.
- **Research Question 6:** *How large are the obstacles to preventing improvements in outdoor recreation in Missouri?*
 - **Research Objectives:**
 - RO6.1 Determine if low priority/support is an obstacle to improving outdoor recreation in local communities.
 - RO6.2 Determine if funding issues are an obstacle to improving outdoor recreation in local communities.
 - RO6.3 Determine if outdoor recreation management is an obstacle to improving outdoor recreation in local communities.
 - RO6.4 Determine if safety is an obstacle to improving outdoor recreation in local communities.
 - RO6.5 Determine if land issues are an obstacle to improving outdoor recreation in local communities.
- **Research Question 7:** *How well are the outdoor recreation needs of various age groups being met?*
 - **Research Objectives:**
 - RO7.1 Determine how well current local outdoor recreation facilities meet the needs of 0 to 5 year olds.
 - RO7.2 Determine how well current local outdoor recreation facilities meet the needs of 6 to 12 year olds.

- RO7.3 Determine how well current local outdoor recreation facilities meet the needs of 13 to 18 year olds.
 - RO7.4 Determine how well current local outdoor recreation facilities meet the needs of 19 to 34 year olds.
 - RO7.5 Determine how well current local outdoor recreation facilities meet the needs of 35 to 54 year olds.
 - RO7.6 Determine how well current local outdoor recreation facilities meet the needs of 55 years or older.
- **Research Question 8:** *Are there any critical, unidentified issues that impact outdoor recreation in Missouri, or other popular facilities or activities?*
 - **Research Objectives:**
 - RO8.1 Determine any other critical/important issues related to outdoor recreation in Missouri
 - RO8.2 Determine any other outdoor recreation facilities or activities that are popular in Missouri.

Methodology

This study was a conclusive, descriptive, and cross-sectional study conducted using a Computer Assisted Telephone (CATI) Survey. Qualified respondents included parks/outdoor recreation professionals and providers with the following titles: executive director, director, assistant director, deputy director, superintendent, supervisor, senior planner, planner, professor, and assistant professor.

The sample of professionals to be surveyed was provided by the state agency via mailing lists, which were merged and duplicates removed. Six databases were combined -- a Missouri State Parks Association Membership List (574 records), a Federal Agency Contact List (13 records), a SCORP contact list provided by the state agency (129 records), an RTP list related to SCORP (599 records), an MTRB nomination mailing list (25 records), and a Missouri SCORP Trail Advisory Board Member List (8 records), for a total of 1348 records.

The sample of 1,348 records was reviewed by the state agency and narrowed down to 602 unique, relevant records for calling.

Data Collection Instrument and Procedure

SYNERGY/PRI/JPA assisted the state agency in developing the survey instrument. SYNERGY/PRI/JPA programmed the survey to allow for CATI using Ci3 software. The survey was pre-tested among PRI's interview staff to make sure it was clear, easy to understand, flowed and skipped properly.

Of the 602 unique records, a total of n=151 completes were collected, for a response rate of 25.08%. Assuming a population size of 602, a 95% confidence level, and a worst-case 50% percentage, n=151 completes provides a confidence interval of 95% +/- 6.91%

Fieldwork started on May 23rd, 2011, and was finished on June 1st, 2011. 2,520 total telephone dialings were made in 147.00 total hours. Interviews lasted approximately 25.68 minutes on average, and interviewers made an average of 16.69 calls per every complete. On average, one interview was completed every 1.22 logon hours.

Tabulation and Data Analysis Techniques

The following statistical techniques were used to compile this report.

- **Descriptive Statistics:** Includes frequency distributions, means, variances, and other statistical measures. Used to describe the composition of the survey sample and provide preliminary data examinations.
- **One Sample T-Test:** Statistical test that compares the mean score or proportion in a sample to a known population value, e.g. is measure X equal to its known value in the general population? Is the proportion of males/females in the sample equal to the proportion of males/females in the general population?
 - Prior to testing, a level of confidence must be decided upon, typically either 90% or 95%, indicating a 90% or 95% chance that the population mean lies within the confidence interval determined by the sample (i.e. they are statistically equal at the given level of confidence).
 - The one sample t-test requires two mutually exclusive hypotheses to test.
 - H_0 is known as the Null Hypothesis and it assumes there is no statistically significant difference between the sample value and its known value (i.e. the sample mean or proportion and the known value in the general population are statistically equal, e.g. the ratio of males/females in a sample is not statistically significant from the ratio of males/females in the general population).
 - H_1 is known as the alternative hypothesis and it states that the difference between the sample variable and the known value is statistically significant (i.e. the two values are not statistically equal, e.g. sample ratio of males/females is not equal to the population ratio).

- One hypothesis will be rejected and the other will be accepted, depending on the result of the test.
- The result of this test includes a p-value (or sig, i.e. significance).
 - A p-value (or sig) less than 0.05 (p-value or sig < 0.05) indicates significance at the 95% level, i.e. there is a 95% chance that the mean of the two groups are significantly different (i.e. not the same), therefore H_0 (i.e. the values are the equal) is rejected and H_1 is accepted (i.e. the values are different).
 - A p-value less than 0.10 (p-value or sig < 0.10) indicates that the difference between the two groups is statistically significant at the 90% level and there is a 90% chance the true population mean does lies within the defined confidence interval (i.e. the two values are not equal), therefore H_0 (i.e. the measures is the same across both groups) is rejected and H_1 (i.e. the measure is not equal between the two groups) is accepted.
 - A p-value greater than 0.05 (at the 95% level) or greater than 0.10 (at the 90% level) indicate that the two means are not significantly different from each other (i.e. they are equal) at that level, and therefore H_1 (i.e. the groups are not equal) is rejected and H_0 (i.e. the groups are equal) is accepted.
- Dichotomous (i.e. values 1 or 0), mutually exclusive categorical measures (i.e. Yes=1/No=0, Male=0/Female=1) can also have their proportions tested against known population proportions (e.g. testing a sample's proportions of male/female against the known population ratio).
- **Independent Samples T-Test:** Statistical test to assess whether the means of two groups are statistically different, e.g. are males more, less, or equally satisfied compared to females? Is the popularity of X in urban areas greater, less then, or equal to the popularity of X in rural needs?
 - Prior to testing, a level of confidence must be decided upon, typically either 90% or 95%, indicating a 90% or 95% probability that the mean scores between the two groups are the same or different (i.e. they are statistically equal or not equal at the given level of confidence).
 - The independent samples t-test is like the one sample t-test in that it requires two mutually exclusive hypotheses to test, but it differs in that the one sample t-test tests against a known value while the independent samples t-test tests one measure between two groups (e.g. urban satisfaction vs. rural satisfaction) based on a dichotomous mutually exclusive variable from the sample (e.g. Yes/No, Male/Female).
 - The one independent samples t-test requires two mutually exclusive hypotheses to test.
 - H_0 is known as the Null Hypothesis and it assumes that there is no statistically significant difference between the two groups being tested (i.e. the values are statistically equal, e.g. no difference in X between urban and rural).
 - H_1 is known as the alternative hypothesis that the difference between the two values is statistically significant (i.e. the values are not the same, e.g. statistically significant difference in X between urban and rural).
 - One hypothesis will be rejected and the other will be accepted, depending on the result of the test.
 - The result of this test includes a p-value (or sig, i.e. significance).
 - A p-value (or sig) less than 0.05 (p-value or sig < 0.05) indicates significance at the 95% level, i.e. there is a 95% chance that the mean of the two groups are significantly different.
 - A p-value less than 0.10 (p-value or sig < 0.10) indicates that the difference between the two groups is statistically significant at the 90% level and that here is a 90% chance that the two mean values are significantly different, therefore H_0 (i.e. the groups are the equal) is rejected and H_1 (i.e. the groups are not equal) is accepted.
 - A p-value greater than 0.05 (at the 95% level) or greater than 0.10 (at the 90% level) indicate that the measure does not significantly differ between the two groups (i.e. the measure is statistically equal between the two groups at the given test/confidence level), and therefore H_1 (i.e. the groups are not equal) is rejected and H_0 (i.e. the groups are equal) is accepted.

- Dichotomous, mutually exclusive categorical measures (i.e. Yes=1/No=0 or Male=0/Female=1) can also have their proportions tested against known population proportions (e.g. testing a sample's proportions of male/female among two different groups).
- **Paired Samples T-Test:** Statistical test to assess whether the means of paired variables in the sample are statistically different, e.g. is the popularity of X over the last five years the same as popularity of X in the next five years? Is the level of unmet needs among 19-34 year olds the same as the level of unmet needs among 35-54 year olds?
 - Prior to testing, a level of confidence must be decided upon, typically either 90% or 95%, indicating a 90% or 95% probability that the mean values between the two measures are the same (or different).
 - The paired samples t-test is also like the one sample t-test in that it requires two mutually exclusive hypotheses to test, but it differs in that the one sample t-test tests against a known value while the paired samples t-test tests two variables from the sample against each other.
 - The one sample t-test requires two mutually exclusive hypotheses to test.
 - H_0 is known as the Null Hypothesis and it assumes that there is no statistically significant difference between the two measures being tested (i.e. the means scores are statistically equal).
 - H_1 is known as the alternative hypothesis that the difference between the two values is statistically significant (i.e. the mean scores are not equal).
 - One hypothesis will be rejected and the other will be accepted, depending on the result of the test.
 - The result of this test includes a p-value (or sig, i.e. significance).
 - A p-value (or sig) less than 0.05 (p-value or sig < 0.05) indicates significance at the 95% level, i.e. there is a 95% chance that the means/proportions of the two variables are significantly different.
 - A p-value less than 0.10 (p-value or sig < 0.10) indicates that the difference between the two groups is statistically significant at the 90% level and that there is a 90% chance that the two mean values are significantly different, therefore H_0 (i.e. the groups are the same) is rejected and H_1 is accepted (i.e. the groups are different).
 - A p-value greater than 0.05 (at the 95% level) or greater than 0.10 (at the 90% level) indicate that the two means are not significantly different from each other (i.e. they are statistically equal at the given test level), and therefore H_1 (i.e. the groups are different) is rejected and H_0 (i.e. the groups are the same) is accepted.
- **Crosstab:** Cross-tabulations in order to examine frequencies of observations that belong to specific categories on more than one variable.
 - Independent samples t-tests are conducted among all crosstab columns and statistically significant differences (95%, $p < 0.05$) are flagged in the table using capital letters

Detailed Results

A. Composition of the Sample

Respondents were asked their zip code and their current job position (Table 1a and Chart 1a).

- **Supervisors** comprised 29.1% (n=44) of the sample
- **Directors** comprised 28.5% (n=43) of the sample
- **Superintendents** comprised 19.2% (n=29) of the sample
- **Planners** comprised 9.9% (n=15) of the sample
- **Assistant Directors** comprised 4.6% (n=7) of the sample
- **Executive Directors** comprised 4.0% (n=6) of the sample
- **Professors** comprised 2.0% (n=3) of the sample
- **Deputy Directors** and **Senior Planners** each comprised 1.3% (n=2) of sample

Table 1a. S2. What is your current job position?

	Frequency	Percent
Executive Director	6	4.0%
Director	43	28.5%
Assistant Director	7	4.6%
Deputy Director	2	1.3%
Superintendent	29	19.2%
Supervisor	44	29.1%
Senior Planner	2	1.3%
Planner	15	9.9%
Professor	3	2.0%
Total	151	100.0%

Chart 1a.



Completes were tabulated per zip code (Table 1b) and sorted from highest number of completes to lowest.

Table 1b. Completes per Zip Code

	Frequency	Percent
64063	7	4.6%
63105	6	4.0%
65101	6	4.0%
65803	6	4.0%
64015	5	3.3%
63131	4	2.6%
65201	4	2.6%
65203	4	2.6%
63122	3	2.0%
63901	3	2.0%
64030	3	2.0%
64068	3	2.0%
64093	3	2.0%
65807	3	2.0%
63021	2	1.3%
63042	2	1.3%
63050	2	1.3%
63084	2	1.3%
63130	2	1.3%
63144	2	1.3%
63301	2	1.3%
63701	2	1.3%
64083	2	1.3%
64089	2	1.3%
64116	2	1.3%
64468	2	1.3%
64505	2	1.3%
65202	2	1.3%
65714	2	1.3%
61433	1	0.7%
63022	1	0.7%
63031	1	0.7%
63040	1	0.7%
63043	1	0.7%
63044	1	0.7%
63101	1	0.7%
63112	1	0.7%
63117	1	0.7%
63119	1	0.7%
63123	1	0.7%
63126	1	0.7%
63127	1	0.7%
63132	1	0.7%
63134	1	0.7%
63135	1	0.7%
63136	1	0.7%

Table 1b. Completes per Zip Code

	Frequency	Percent
63137	1	0.7%
63141	1	0.7%
63304	1	0.7%
63367	1	0.7%
63368	1	0.7%
63376	1	0.7%
63379	1	0.7%
63385	1	0.7%
63401	1	0.7%
63601	1	0.7%
63703	1	0.7%
63755	1	0.7%
63775	1	0.7%
63780	1	0.7%
63801	1	0.7%
63868	1	0.7%
64029	1	0.7%
64050	1	0.7%
64057	1	0.7%
64079	1	0.7%
64085	1	0.7%
64086	1	0.7%
64111	1	0.7%
64119	1	0.7%
64130	1	0.7%
64133	1	0.7%
64150	1	0.7%
64429	1	0.7%
64650	1	0.7%
64701	1	0.7%
65026	1	0.7%
65205	1	0.7%
65211	1	0.7%
65233	1	0.7%
65240	1	0.7%
65301	1	0.7%
65340	1	0.7%
65616	1	0.7%
65721	1	0.7%
65738	1	0.7%
65762	1	0.7%
65802	1	0.7%
65806	1	0.7%
65810	1	0.7%
Total	151	100.0%

Completes per county was calculated based on zip code (Table 1c).

Table 1c. Completes per County

	Frequency	Percent
St. Louis	38	25.2
Jackson	24	15.9
Greene	14	9.3
Boone	13	8.6
Clay	7	4.6
St. Charles	7	4.6
Cole	6	4
Cape Girardeau	4	2.6
Butler	3	2
Cass	3	2
Christian	3	2
Johnson	3	2
Buchanan	2	1.3
Franklin	2	1.3
Jefferson	2	1.3
Nodaway	2	1.3
Platte	2	1.3
Scott	2	1.3
Caldwell	1	0.7
Clinton/DeKalb	1	0.7
Cooper	1	0.7
Lincoln	1	0.7
Marion	1	0.7
Miller	1	0.7
New Madrid	1	0.7
Ozark	1	0.7
Perry	1	0.7
Pettis	1	0.7
Ray	1	0.7
Saline	1	0.7
St. Francois	1	0.7
St. Louis City	1	0.7
Total	151	100

Completes in urban vs. rural areas were computed based on zip code (Table 1d).

Table 1d. Urban or Rural by Zip Code (from 2000 census)

	Frequency	Percent
Rural	15	9.9
Urban	136	90.1
Total	151	100

Finally, completes per area code were computed based on contact phone number (Table 1e and Chart 1b).

Table 1e. Area Code (by telephone number)

			Frequency	Percent
Kansas City-West (816)			41	27.2
St. Louis-East (314)			34	22.5
Northeast-Central-Southeast (573)			33	21.9
Southwest (417)			18	11.9
East-Central (636)			17	11.3
Northwest (660)			8	5.3
Total	151	100		

Chart 1b.



B. RESEARCH QUESTIONS (RQ1 – RQ8)

1. Research Question 1 (RQ1)

- *How available are different types of outdoor recreation facilities in Missouri?*

Research Objective 1.1 (RO1.1)

- **Determine the availability of local outdoor recreation facilities in Missouri.**

We asked respondents to rate outdoor recreation facilities in their communities by answering questions 1 through 4 of the survey (Q1. Need of Improvement, Q2. Local Demand, Q3. Popularity over the Last Five Years, and Q4. Popularity in the Next Five Years).

Respondents rated the Need of Improvement for local facilities, with a score of 1 being “No Need of Improvement and 5 being “Extreme Need of Improvement.” If a facility is not available it was scored as a 9 and recoded as a missing value.

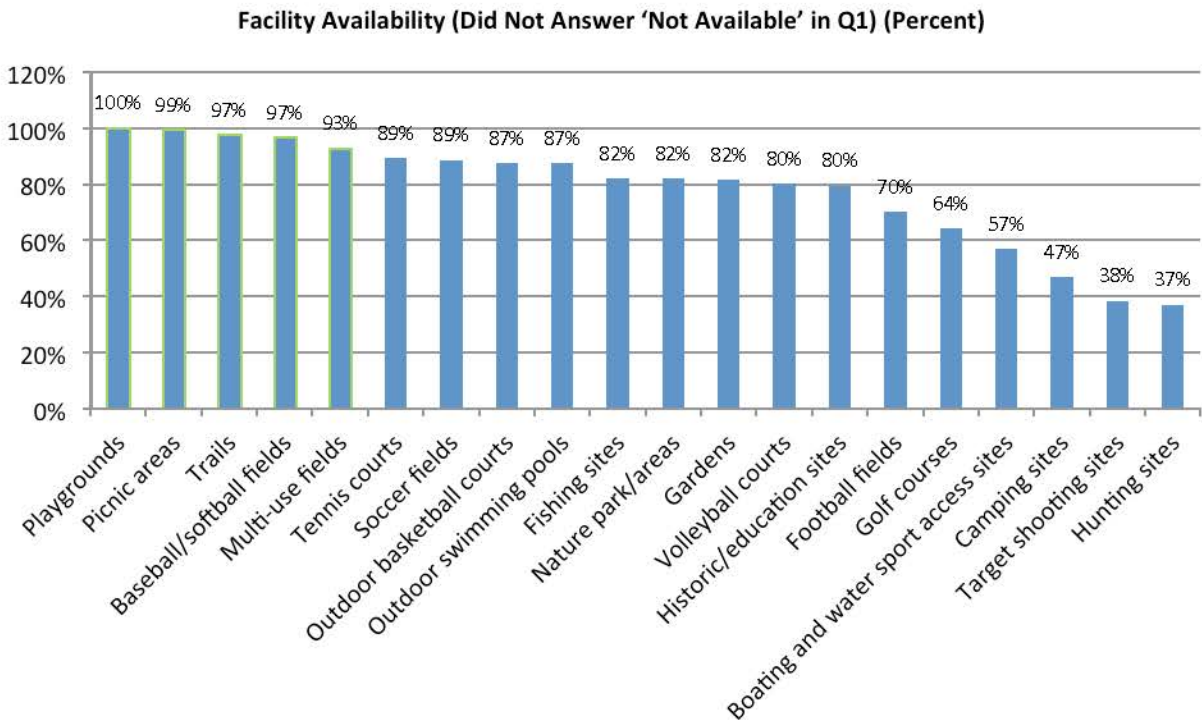
We determined Facility Availability by the percentage of respondents that did not answer ‘Not Available’ in Q1. Availability percentages were sorted from high to low (Table RO1.1a and Chart RO1.1a).

- **100%** of respondents (n=151) indicated the availability of **Playgrounds** (100%, n=151).
- Greater than **90%** (n=136) of respondents indicated the availability of **Picnic areas** (99.3%, n=150), **Trails** (97.4%, n=147), **Baseball/softball fields** (96.7%, n=146), and **Multi-use fields** (92.7%, n=140).
- Greater than **80%** of respondents indicated the availability of **Tennis courts** (89.4%, n=135), **Soccer fields** (88.7%, n=134), **Outdoor basketball courts** and **Outdoor swimming pools** (87.4%, n=132), **Fishing sites** and **Nature park/areas** (82.1%, n=124), **Gardens** (81.5%, n=123), and **Volleyball courts** (80.1%, n=121).
- Greater than **60%** of respondents indicated the availability of **Historic/education sites** (79.5%, n=120), **Football fields** (70.2%, n=106), and **Golf courses** (64.2%, n=97).
- Less than **60%** (n=86) of respondents indicated the availability of **Boating and water sport access sites** (57%, n=86), **Camping sites** (47%, n=71), **Target shooting sites** (38.4%, n=58), and **Hunting sites** (37.1%, n=56).

Table RO1.1a. Facility Available (Did Not Answer 'Not Available' in Q1) (Percent)

Facility Type	Available	Percent
Playgrounds	151	100.0%
Picnic areas	150	99.3%
Trails	147	97.4%
Baseball/softball fields	146	96.7%
Multi-use fields	140	92.7%
Tennis courts	135	89.4%
Soccer fields	134	88.7%
Outdoor basketball courts	132	87.4%
Outdoor swimming pools	132	87.4%
Fishing sites	124	82.1%
Nature park/areas	124	82.1%
Gardens	123	81.5%
Volleyball courts	121	80.1%
Historic/education sites	120	79.5%
Football fields	106	70.2%
Golf courses	97	64.2%
Boating and water sport access sites	86	57.0%
Camping sites	71	47.0%
Target shooting sites	58	38.4%
Hunting sites	56	37.1%

Chart RO1.1a.



Respondents were asked, “Are there any outdoor recreation facilities, trails, or programs that are not provided in your area but should be?” Responses were coded, tallied, and sorted by count from high to low (Table RO1.1b and Chart RO1.1b).

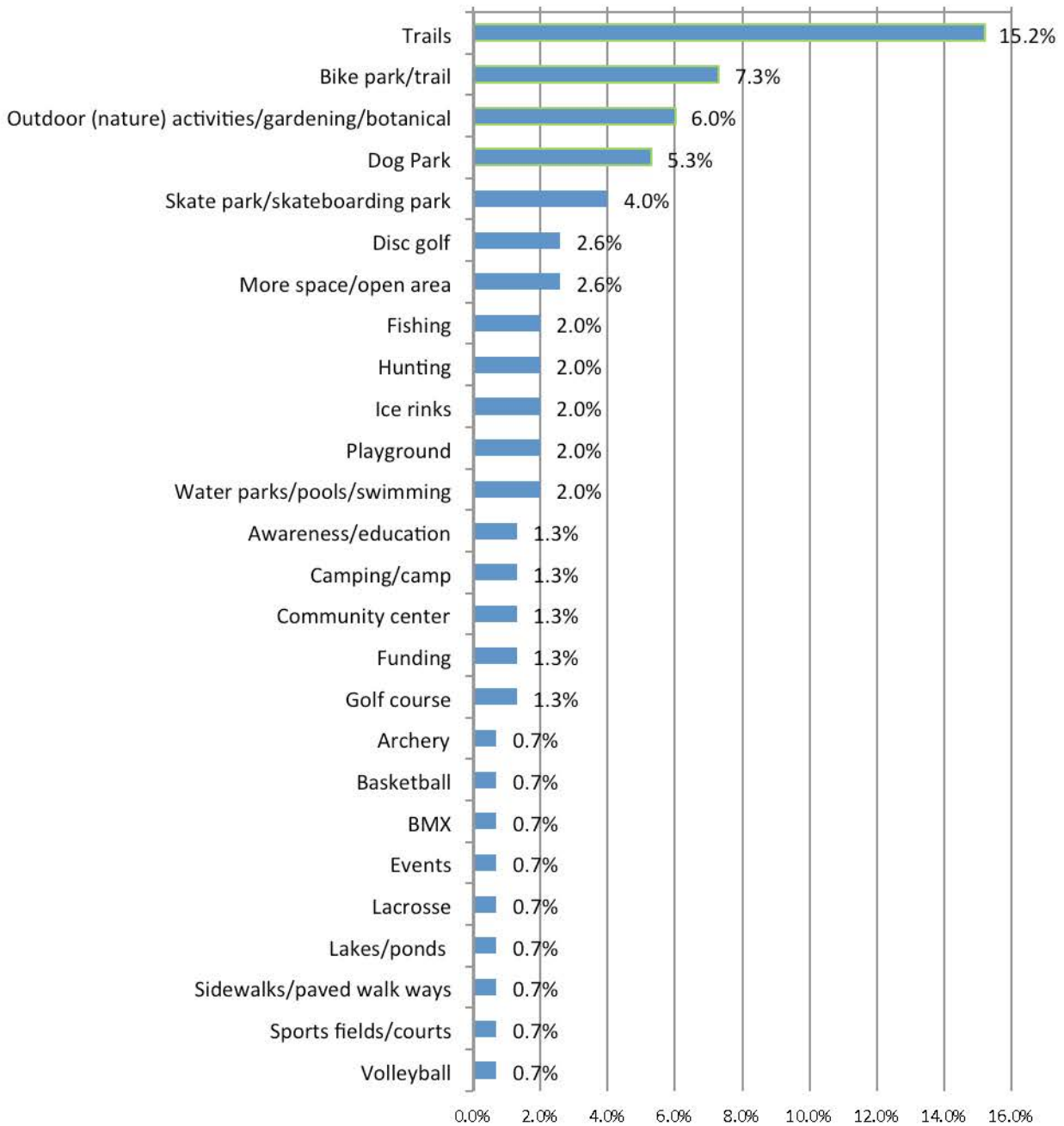
- **Nothing** had the highest frequency with **51.7%** (n=78).
- **Trails** had the 2nd highest frequency **15.20%** (n=23).
- **Bike park/trail** had (7.30%, n=11), **Outdoor (nature) activities/gardening/botanical** (6.0%, n=9), and **Dog park** (5.3%, n=8) were all mentioned by at least **5%** of respondents.

Table RO1.1b. Q17 Frequencies - Are there any outdoor recreation facilities, trails, or programs that are not provided in your area but should be?

Code	Response	Responses		Percent of Cases
		N	Percent	
28	Trails	23	12.60%	15.20%
12	Bike park/trail	11	6.00%	7.30%
43	Outdoor (nature) activities/gardening/botanical	9	4.90%	6.00%
11	Dog park	8	4.40%	5.30%
10	Skate park/skateboarding park	6	3.30%	4.00%
14	Disc golf	4	2.20%	2.60%
23	More space/open area	4	2.20%	2.60%
101	Fishing	3	1.60%	2.00%
102	Hunting	3	1.60%	2.00%
26	Ice rinks	3	1.60%	2.00%
24	Playground	3	1.60%	2.00%
20	Water parks/pools/swimming	3	1.60%	2.00%
35	Awareness/education	2	1.10%	1.30%
41	Camping/camp	2	1.10%	1.30%
16	Community center	2	1.10%	1.30%
34	Funding	2	1.10%	1.30%
15	Golf course	2	1.10%	1.30%
45	Archery	1	0.50%	0.70%
33	Basketball	1	0.50%	0.70%
44	BMX	1	0.50%	0.70%
47	Events	1	0.50%	0.70%
46	Lacrosse	1	0.50%	0.70%
18	Lakes/ponds	1	0.50%	0.70%
49	Sidewalks/paved walk ways	1	0.50%	0.70%
21	Sports fields/courts	1	0.50%	0.70%
30	Volleyball	1	0.50%	0.70%
96	Nothing	78	42.90%	51.70%
99	Other	5	2.70%	3.30%
	Total	182	100.00%	120.50%

Chart RO1.1b.

Q17. - Are there any outdoor recreation facilities, trails, or programs that are not provided in your area but should be?



Research Objective 1.2 (RO1.2)

- **Determine local demand for outdoor recreation facilities in Missouri.**

All respondents were asked to rate the local demand of local facilities using an interval scale from -3 to 3, where -3 = "Demand much lower than supply," -2 = "Demand lower than supply," -1 = "Demand slightly lower than supply," 0 = "Demand is about right," 1 = "Demand slightly higher than supply," 2 = "Demand higher than supply," and 3 = "Demand much higher than supply". All respondents provided valid answers and there were no missing values.

Local Demand mean scores (\bar{x}) were computed for all facility types and sorted from high to low (Table RO1.2a and Chart RO1.2a). A mean score of 0 indicates that the supply currently matches the demand. A mean score above 0 indicates that demand is higher than what is currently being supplied. A negative score indicates that demand is lower than what is currently being supplied.

- **Trails** (\bar{x} =1.69), **Playgrounds** (\bar{x} =1.16), and **Multi-use fields** (\bar{x} =1.11) had means between **1.0** (Slightly Higher) and **2.0** (Higher), indicating that demand is Slightly Higher to Higher than what is currently being supplied.
 - **Trails** had the smallest standard deviation at **1.266**, indicating lower variance for demand of **Trails**.
- **Picnic areas** (\bar{x} =0.94), **Soccer fields** (\bar{x} =0.93), **Baseball/softball fields** (\bar{x} =0.74), **Gardens** (\bar{x} =0.72), **Nature park/areas** (\bar{x} =0.60), **Fishing sites** (\bar{x} =0.55), **Outdoor swimming pools** (\bar{x} =0.49), **Football fields** (\bar{x} =0.47), **Boating and water sport access sites** (\bar{x} =0.29), **Camping sites** (\bar{x} =0.23), **Outdoor basketball courts** (\bar{x} =0.22), **Historic education sites** and **Hunting sites** (\bar{x} =0.21), **Tennis courts** (\bar{x} =0.14), and **Target shooting sites** (\bar{x} =0.01) all had mean scores above 0.0.
 - Of these, **Target shooting sites** had the smallest standard deviation at **1.046**, indicating lower variance for demand of **Target shooting sites**.
- **Golf courses** (\bar{x} =-0.11) and **Volleyball courts** (\bar{x} =-0.13) were the only two facility types with a negative mean, indicating that demand is slightly lower than what is currently being supplied.

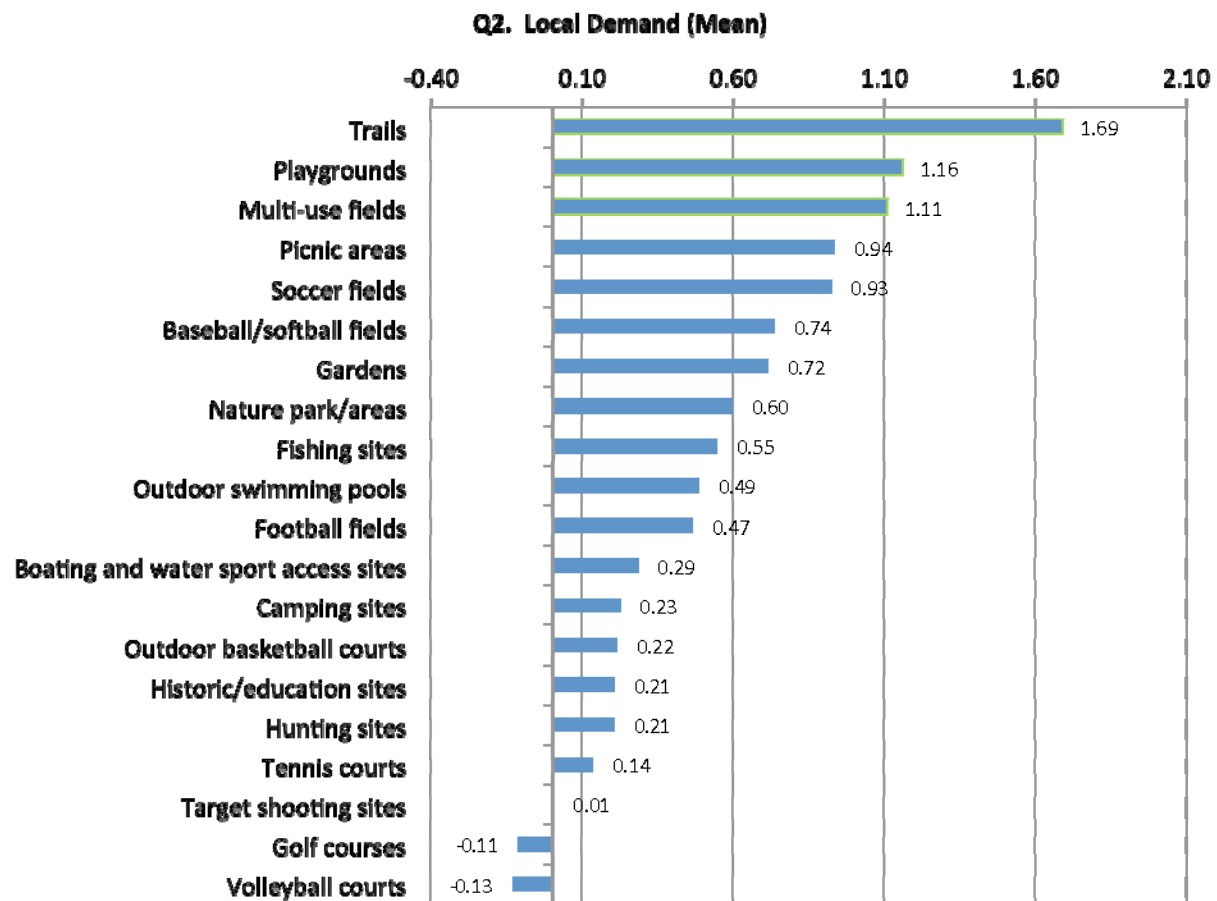
Table RO1.2a. Statistics – Q2. Local demand

Facility Type	N	Mean	Std. Deviation	Std. Error Mean
Trails	151	1.69	1.266	0.103
Playgrounds	151	1.16	1.312	0.107
Multi-use fields	151	1.11	1.438	0.117
Picnic areas	151	0.94	1.367	0.111
Soccer fields	151	0.93	1.374	0.112
Baseball/softball fields	151	0.74	1.408	0.115
Gardens	151	0.72	1.471	0.120
Nature park/areas	151	0.60	1.250	0.102
Fishing sites	151	0.55	1.300	0.106
Outdoor swimming pools	151	0.49	1.612	0.131
Football fields	151	0.47	1.451	0.118
Boating and water sport access sites	151	0.29	1.379	0.112
Camping sites	151	0.23	1.322	0.108
Outdoor basketball courts	151	0.22	1.395	0.114
Historic/education sites	151	0.21	1.179	0.096

Table RO1.2a. Statistics – Q2. Local demand

Facility Type	N	Mean	Std. Deviation	Std. Error Mean
Hunting sites	151	0.21	1.417	0.115
Tennis courts	151	0.14	1.291	0.105
Target shooting sites	151	0.01	1.046	0.085
Golf courses	151	-0.11	1.206	0.098
Volleyball courts	151	-0.13	1.365	0.111

Chart RO1.2a.



Frequencies and percentages were tallied for all respondents (Table RO1.2b).

- **Trails** was the only facility type that had a higher percentage of “Much Higher” responses than any other response, with **33.8%** (n=51) of respondents indicating that demand for trails is much higher than local supply.
- **Playgrounds** had an equal percentage of “Higher” responses as “About Right,” with **26.5%** (n=40) respondents indicating that demand for playgrounds is either higher than local supply or about right.

Table RO1.2b. Q2. Local Demand – Frequencies

Facility Type	Much Lower	Lower	Slightly Lower	About Right	Slightly Higher	Higher	Much Higher
Baseball/softball fields	2% (3)	3.3% (5)	10.6% (16)	30.5% (46)	23.8% (36)	16.6% (25)	13.2% (20)
Outdoor basketball courts	5.3% (8)	4% (6)	12.6% (19)	43.7% (66)	18.5% (28)	7.9% (12)	7.9% (12)
Boating and water sport access sites	6.6% (10)	2% (3)	4.6% (7)	54.3% (82)	15.9% (24)	7.9% (12)	8.6% (13)
Camping sites	4% (6)	6% (9)	6% (9)	55% (83)	13.2% (20)	8.6% (13)	7.3% (11)
Fishing sites	2% (3)	2.6% (4)	6.6% (10)	48.3% (73)	20.5% (31)	7.3% (11)	12.6% (19)
Football fields	2% (3)	7.3% (11)	7.9% (12)	45% (68)	12.6% (19)	12.6% (19)	12.6% (19)
Gardens	2% (3)	5.3% (8)	5.3% (8)	39.7% (60)	20.5% (31)	8.6% (13)	18.5% (28)
Golf courses	6% (9)	6% (9)	10.6% (16)	57.6% (87)	13.9% (21)	2% (3)	4% (6)
Historic/education sites	3.3% (5)	4.6% (7)	7.9% (12)	51.7% (78)	21.2% (32)	7.3% (11)	4% (6)
Hunting sites	6% (9)	4% (6)	4.6% (7)	61.6% (93)	7.3% (11)	5.3% (8)	11.3% (17)
Multi-use fields	2% (3)	2% (3)	4% (6)	31.1% (47)	20.5% (31)	17.2% (26)	23.2% (35)
Picnic areas	0% (0)	4% (6)	7.9% (12)	31.8% (48)	19.2% (29)	20.5% (31)	16.6% (25)
Playgrounds	1.3% (2)	1.3% (2)	4.6% (7)	26.5% (40)	22.5% (34)	26.5% (40)	17.2% (26)
Soccer fields	1.3% (2)	2.6% (4)	5.3% (8)	35.1% (53)	20.5% (31)	17.9% (27)	17.2% (26)
Outdoor swimming pools	7.3% (11)	4% (6)	6.6% (10)	37.7% (57)	16.6% (25)	14.6% (22)	13.2% (20)
Tennis courts	3.3% (5)	7.3% (11)	11.9% (18)	46.4% (70)	15.9% (24)	11.3% (17)	4% (6)
Trails	0.7% (1)	0.7% (1)	3.3% (5)	14.6% (22)	19.9% (30)	27.2% (41)	33.8% (51)
Volleyball courts	6% (9)	9.3% (14)	16.6% (25)	43.7% (66)	13.9% (21)	6% (9)	4.6% (7)
Target shooting sites	4.6% (7)	2.6% (4)	6% (9)	69.5% (105)	10.6% (16)	4% (6)	2.6% (4)
Nature park/areas	0.7% (1)	4% (6)	6.6% (10)	46.4% (70)	17.9% (27)	15.2% (23)	9.3% (14)

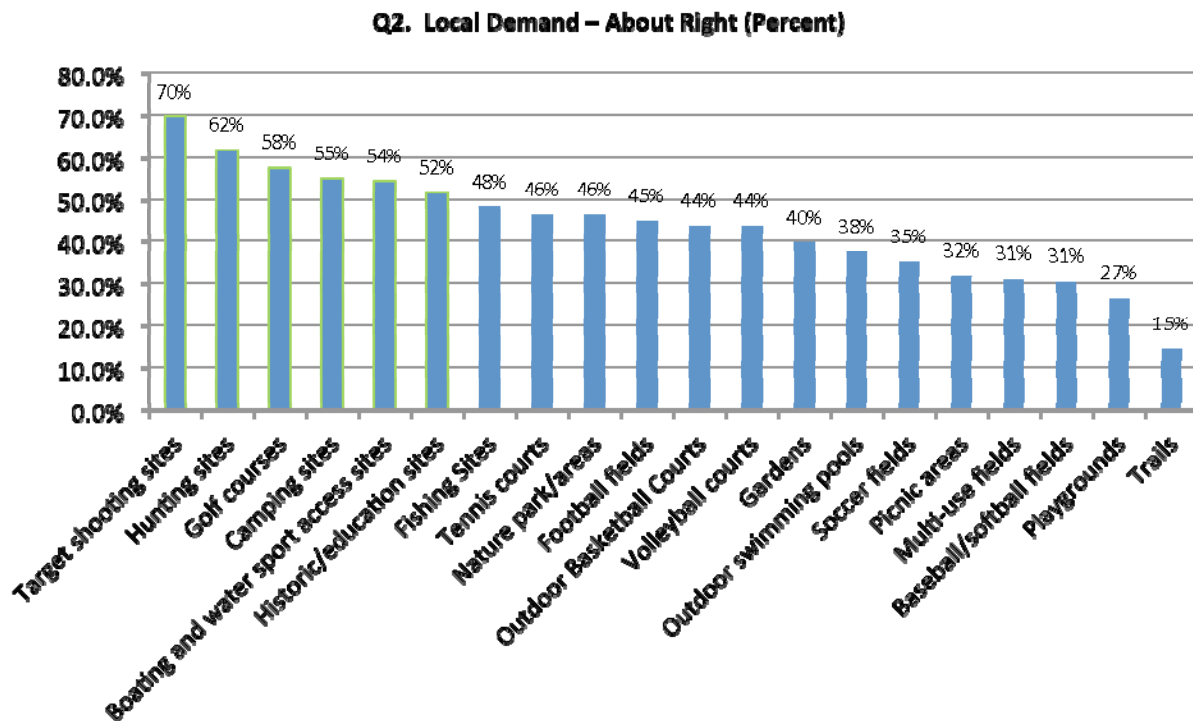
Local Demand frequencies were sorted by the percentage of responses indicating “About Right” and sorted from high to low (Table RO1.2c and Chart RO1.2b).

- **Target shooting sites** (69.5%, n=105), **Hunting sites** (61.2%, n=93), **Golf courses** (57.6%, n=87), **Camping sites** (55%, n=83), **Boating and water access sites** (54.3%, n=82), and **Historic/education sites** (52%, n=78) all had **50%** or more “About Right” responses, indicating that local supply meets demand for those facility types.

Table RO1.2c. Q2. Local Demand – Frequencies – Demand About Right

Facility Type	Much Lower	Lower	Slightly Lower	About Right	Slightly Higher	Higher	Much Higher
Target shooting sites	4.6% (7)	2.6% (4)	6% (9)	69.5% (105)	10.6% (16)	4% (6)	2.6% (4)
Hunting sites	6% (9)	4% (6)	4.6% (7)	61.6% (93)	7.3% (11)	5.3% (8)	11.3% (17)
Golf courses	6% (9)	6% (9)	10.6% (16)	57.6% (87)	13.9% (21)	2% (3)	4% (6)
Camping sites	4% (6)	6% (9)	6% (9)	55% (83)	13.2% (20)	8.6% (13)	7.3% (11)
Boating and water sport access sites	6.6% (10)	2% (3)	4.6% (7)	54.3% (82)	15.9% (24)	7.9% (12)	8.6% (13)
Historic/education sites	3.3% (5)	4.6% (7)	7.9% (12)	51.7% (78)	21.2% (32)	7.3% (11)	4% (6)
Fishing Sites	2% (3)	2.6% (4)	6.6% (10)	48.3% (73)	20.5% (31)	7.3% (11)	12.6% (19)
Tennis courts	3.3% (5)	7.3% (11)	11.9% (18)	46.4% (70)	15.9% (24)	11.3% (17)	4% (6)
Nature park/areas	0.7% (1)	4% (6)	6.6% (10)	46.4% (70)	17.9% (27)	15.2% (23)	9.3% (14)
Football fields	2% (3)	7.3% (11)	7.9% (12)	45% (68)	12.6% (19)	12.6% (19)	12.6% (19)
Outdoor Basketball Courts	5.3% (8)	4% (6)	12.6% (19)	43.7% (66)	18.5% (28)	7.9% (12)	7.9% (12)
Volleyball courts	6% (9)	9.3% (14)	16.6% (25)	43.7% (66)	13.9% (21)	6% (9)	4.6% (7)
Gardens	2% (3)	5.3% (8)	5.3% (8)	39.7% (60)	20.5% (31)	8.6% (13)	18.5% (28)
Outdoor swimming pools	7.3% (11)	4% (6)	6.6% (10)	37.7% (57)	16.6% (25)	14.6% (22)	13.2% (20)
Soccer fields	1.3% (2)	2.6% (4)	5.3% (8)	35.1% (53)	20.5% (31)	17.9% (27)	17.2% (26)
Picnic areas	0% (0)	4% (6)	7.9% (12)	31.8% (48)	19.2% (29)	20.5% (31)	16.6% (25)
Multi-use fields	2% (3)	2% (3)	4% (6)	31.1% (47)	20.5% (31)	17.2% (26)	23.2% (35)
Baseball/softball fields	2% (3)	3.3% (5)	10.6% (16)	30.5% (46)	23.8% (36)	16.6% (25)	13.2% (20)
Playgrounds	1.3% (2)	1.3% (2)	4.6% (7)	26.5% (40)	22.5% (34)	26.5% (40)	17.2% (26)
Trails	0.7% (1)	0.7% (1)	3.3% (5)	14.6% (22)	19.9% (30)	27.2% (41)	33.8% (51)

Chart RO1.2b.



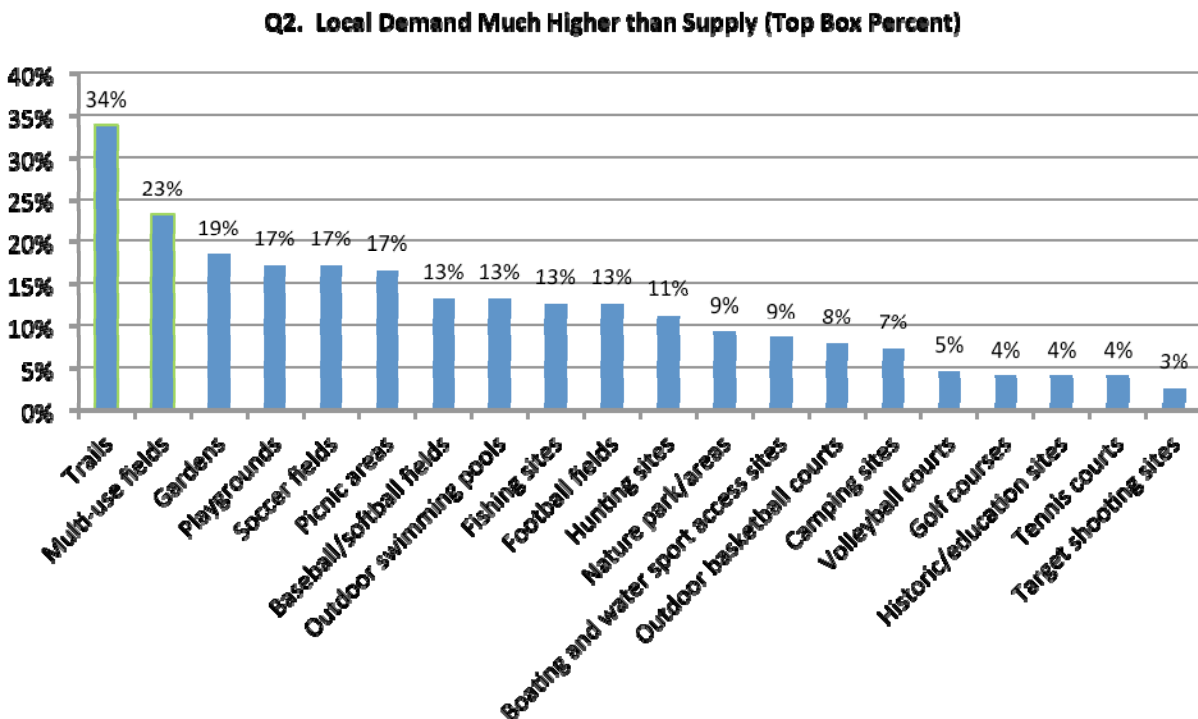
Local Demand frequencies were sorted by the percentage of responses indicating “Much Higher” (i.e. Local demand is much higher than supply) and sorted from high to low (Table RO1.2d and Chart RO1.2c).

- **Trails** had the highest Top Box percentage (number of respondents who selected “Much Higher” Local Demand) at **33.8%** (n=51). More than 1/3rd of respondents indicated that local demand for trails is much higher than supply. No other facility type had a top percentage greater than 23.2, a 10.6% difference, indicating that local demand for trails, more than any other type of facility, is much higher than supply.
- **Multi-use fields** had the second highest number of “Much Higher” responses at **23.2%** (n=35).
- **Gardens** (18.5%, n=28), **Playgrounds** and **Soccer fields** (17.2%, n=26), and **Picnic areas** (16.6%, n=25) all had top box percentages between **15%** and **20%**, indicating that local demand is higher than local supply for those facility types.
- **Baseball/softball fields** and **Outdoor swimming pools** (13.2%, n=26), **Fishing sites** and **Football sites** (17.2%, n=26), and **Hunting sites** (11.3%, n=17) all had top box percentages between **10%** and **15%**, indicating that local demand is higher than supply for those facility types, but not as high as it is for the above mentioned facility types.

Table RO1.2d. Q2. Local Demand – Frequencies – Demand Much Higher than Supply (Top Box Percent)

Facility Type	Much Lower	Lower	Slightly Lower	About Right	Slightly Higher	Higher	Much Higher
Trails	0.7% (1)	0.7% (1)	3.3% (5)	14.6% (22)	19.9% (30)	27.2% (41)	33.8% (51)
Multi-use fields	2% (3)	2% (3)	4% (6)	31.1% (47)	20.5% (31)	17.2% (26)	23.2% (35)
Gardens	2% (3)	5.3% (8)	5.3% (8)	39.7% (60)	20.5% (31)	8.6% (13)	18.5% (28)
Playgrounds	1.3% (2)	1.3% (2)	4.6% (7)	26.5% (40)	22.5% (34)	26.5% (40)	17.2% (26)
Soccer fields	1.3% (2)	2.6% (4)	5.3% (8)	35.1% (53)	20.5% (31)	17.9% (27)	17.2% (26)
Picnic areas	0% (0)	4% (6)	7.9% (12)	31.8% (48)	19.2% (29)	20.5% (31)	16.6% (25)
Baseball/softball fields	2% (3)	3.3% (5)	10.6% (16)	30.5% (46)	23.8% (36)	16.6% (25)	13.2% (20)
Outdoor swimming pools	7.3% (11)	4% (6)	6.6% (10)	37.7% (57)	16.6% (25)	14.6% (22)	13.2% (20)
Fishing Sites	2% (3)	2.6% (4)	6.6% (10)	48.3% (73)	20.5% (31)	7.3% (11)	12.6% (19)
Football fields	2% (3)	7.3% (11)	7.9% (12)	45% (68)	12.6% (19)	12.6% (19)	12.6% (19)
Hunting sites	6% (9)	4% (6)	4.6% (7)	61.6% (93)	7.3% (11)	5.3% (8)	11.3% (17)
Nature park/areas	0.7% (1)	4% (6)	6.6% (10)	46.4% (70)	17.9% (27)	15.2% (23)	9.3% (14)
Boating and water sport access sites	6.6% (10)	2% (3)	4.6% (7)	54.3% (82)	15.9% (24)	7.9% (12)	8.6% (13)
Outdoor Basketball Courts	5.3% (8)	4% (6)	12.6% (19)	43.7% (66)	18.5% (28)	7.9% (12)	7.9% (12)
Camping sites	4% (6)	6% (9)	6% (9)	55% (83)	13.2% (20)	8.6% (13)	7.3% (11)
Volleyball courts	6% (9)	9.3% (14)	16.6% (25)	43.7% (66)	13.9% (21)	6% (9)	4.6% (7)
Golf courses	6% (9)	6% (9)	10.6% (16)	57.6% (87)	13.9% (21)	2% (3)	4% (6)
Historic/education sites	3.3% (5)	4.6% (7)	7.9% (12)	51.7% (78)	21.2% (32)	7.3% (11)	4% (6)
Tennis courts	3.3% (5)	7.3% (11)	11.9% (18)	46.4% (70)	15.9% (24)	11.3% (17)	4% (6)
Target shooting sites	4.6% (7)	2.6% (4)	6% (9)	69.5% (105)	10.6% (16)	4% (6)	2.6% (4)

Chart RO1.2c.



Cross-tabs – Urban or Rural/Local Demand

Respondents were classified as either **urban or rural** (based on zip code), cross tabulated by **local demand**, and urban and rural mean scores were tested for significant differences using an independent samples t-test (95% and 90%) with H_0 = null/no difference in demand between rural and urban areas and H_1 = different levels of demand between urban and rural areas (Table RO1.2e and Table RO1.2f).

- **Picnic areas** ($p=.009$) was the only facility type to show significant differences between urban and rural at the 95% level ($p < 0.05$ = H_0 rejected and H_1 accepted).
 - **Urban** respondents ($\bar{x}=0.07$, $n=136$) scored higher than **Rural** respondents ($\bar{x}=1.04$, $n=15$), indicating that the local demand for **Picnic areas** is significantly higher in urban areas than rural areas.
- **Outdoor swimming pools** ($p=.055$), **Tennis Courts** ($p=.055$), and **Boating and water sport access sites** ($p=.089$) all had significant differences between urban and rural at the 90% level ($p < 0.10$ = H_0 rejected and H_1 accepted).
 - **Boating and water sport access sites** was the only statistically significant facility type where **rural** demand ($\bar{x}=0.87$, $n=15$) scored higher than **urban** demand ($\bar{x}=0.23$, $n=136$).
 - **Rural** respondents scored negatively for both **Outdoor swimming pools** ($\bar{x}=-0.27$, $n=15$) and **Tennis courts** ($\bar{x}=-0.47$, $n=15$) indicating demand is slightly lower than local supply, while urban respondents indicated the opposite – urban demand for **Outdoor swimming pools** and **Tennis courts** is slightly higher than local supply.

Cross-tabs – Area Code/Local Demand

Respondents were classified by **telephone area code**, cross tabulated by **local demand**, sorted high to low by overall mean (Table RO1.2a) and mean scores were tested against each other for significance (95%) using an

independent sample t-test, with H_0 = null/no difference in local demand between urban and rural areas and H_1 = difference in local demand between urban and rural areas (Table RO1.2g).

- **East-Central (636)** (n=17) area code had the most statistically significant differences, as compared to other regions, with 10 differences among five facility types ($p < 0.05$ = H_0 rejected and H_1 accepted)
 - **Soccer fields** ($\bar{x} = 0.9$, n=151) scored significantly higher in **East-Central (636)** ($\bar{x} = 1.5$, n=17) compared to **Kansas City-West (816)** ($\bar{x} = 0.7$, n=41)
 - **Baseball/softball fields** ($\bar{x} = 0.7$, n=151) scored significantly higher in **East-Central (636)** ($\bar{x} = 1.4$, n=17) compared to **St. Louis-East (314)** ($\bar{x} = 0.23$, n=34) and **Southwest (417)** ($\bar{x} = 0.4$, n=18)
 - **Gardens** ($\bar{x} = 0.2$, n=151) scored significantly higher in **East-Central (636)** ($\bar{x} = 1.1$, n=17) compared to **Kansas City-West (816)** ($\bar{x} = 0.2$, n=41)
 - **Camping sites** ($\bar{x} = 0.2$, n=151) scored significantly higher in **East-Central (636)** ($\bar{x} = 1.1$, n=17) compared to **St. Louis-East (314)** ($\bar{x} = 0.1$, n=34), **Northeast-Central-Southeast (573)** ($\bar{x} = -0.3$, n=33), and **Kansas City-West (816)** ($\bar{x} = 0.2$, n=41)
 - **Historic/education sites** ($\bar{x} = 0.2$, n=151) scored significantly higher in **East-Central (636)** ($\bar{x} = 1.0$, n=17) compared to **St. Louis-East (314)** ($\bar{x} = 0.1$, n=34), **Northeast-Central-Southeast (573)** ($\bar{x} = -0.0$, n=33), and **Kansas City-West (816)** ($\bar{x} = 0.1$, n=41)
- **Southwest (417)** (n=18) and **Northwest (660)** (n=8) area codes both had the second most statistically significant differences, as compared to other regions, with two differences among two facility types ($p < 0.05$ = H_0 rejected and H_1 accepted)
 - **Gardens** ($\bar{x} = 0.2$, n=151) scored significantly higher in **Southwest (417)** ($\bar{x} = 1.1$, n=18) compared to **Kansas City-West (816)** ($\bar{x} = 0.2$, n=41)
 - **Camping sites** ($\bar{x} = 0.2$, n=151) scored significantly higher in **Northwest (660)** ($\bar{x} = 0.6$, n=8) compared to **Northeast-Central-Southeast (573)** ($\bar{x} = -0.3$, n=33)
 - **Hunting sites** ($\bar{x} = 0.2$, n=151) scored significantly higher in **Southwest (417)** ($\bar{x} = 0.8$, n=18) compared to **St. Louis-East (314)** ($\bar{x} = -0.1$, n=34)
 - **Target shooting sites** ($\bar{x} = 0.0$, n=151) scored significantly higher in **Northwest (660)** ($\bar{x} = 0.5$, n=8) compared to **St. Louis-East (314)** ($\bar{x} = -0.3$, n=34)
- **Northeast-Central-Southeast (573)** (n=33) had one statistically significant difference, as compared to other regions, among one facility type ($p < 0.05$ = H_0 rejected and H_1 accepted)
 - **Target shooting sites** ($\bar{x} = 0.0$, n=151) scored significantly higher in **Northeast-Central-Southeast (573)** ($\bar{x} = 0.2$, n=33) compared to **St. Louis-East (314)** ($\bar{x} = -0.3$, n=34).

2. Research Question 2 (RQ2)

- *What types of outdoor recreation facilities in Missouri are in need of improvement?*

Research Objective 2.1 (RO2.1)

- **Determine the level of improvement needed for outdoor recreation facilities in Missouri.**

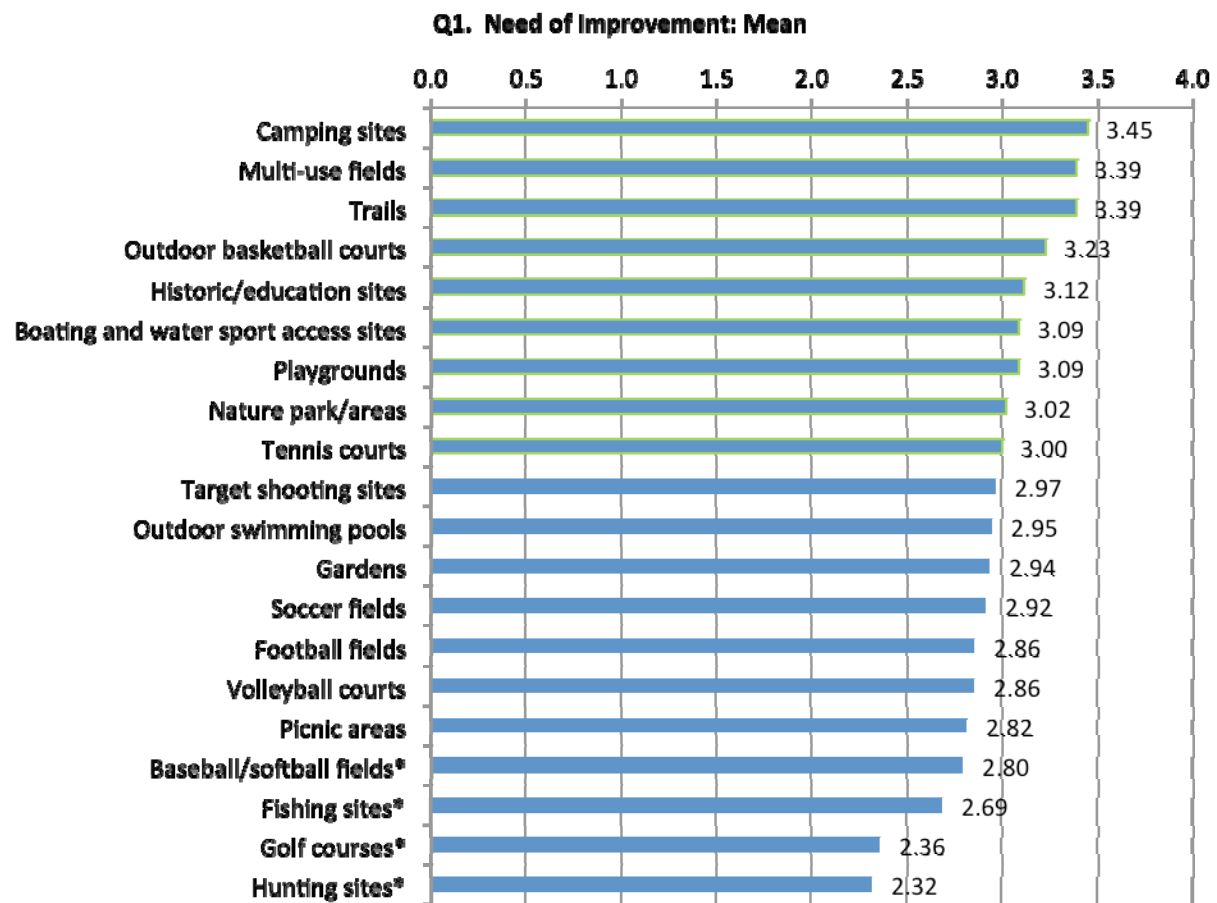
All Need of Improvement mean scores were sorted from high to low (Table RO2.1a and Chart RO2.1a).

- **Camping sites, Multi-use fields, Trails, Outdoor basketball courts, and Historic/education sites** were the top five facility types in need of improvement.
 - **Camping sites** had the highest mean score (\bar{x}) with **3.45 (47%, n=71)**
 - **Multi-use fields** had a mean score (\bar{x}) of **3.39 (92.7%, n=140)**
 - **Trails** had a mean score (\bar{x}) of **3.39 (97.4%, n=147)**
 - **Outdoor basketball courts** had a mean score (\bar{x}) of **3.23 (87.4%, n=132)**
 - **Historic/education sites** had a mean score (\bar{x}) of **3.12 (79.5%, n=120)**
- **Boating and water sport access sites, Playgrounds, Nature park/areas, and Tennis courts** all had means greater than the midpoint of 3.0 indicating at least a moderate need of improvement.
 - **Boating and water sport access sites** had a mean score (\bar{x}) of **3.09 (57%, n=86)**
 - **Playgrounds** had a mean score (\bar{x}) of **3.09 (100%, n=151)**
 - **Nature park/areas** had a mean score (\bar{x}) of **3.02 (82.1%, n=124)**
 - **Tennis courts** had a mean score (\bar{x}) of **3.00 (89.4%, n=135)**
- The following types of facilities all had averages below the midpoint of **3.0**, indicating a less than moderate need of improvement.
 - **Target shooting sites** (\bar{x} =2.97, 38.4%, n=58)
 - **Outdoor swimming pools** (\bar{x} =2.95 , 87.4%, n=132)
 - **Gardens** (\bar{x} =2.94, 81.5%, n=123)
 - **Soccer fields** (\bar{x} =2.92, 88.7%, n=134)
 - **Football fields** (\bar{x} =2.86, 70.2%, n=106)
 - **Volleyball courts** (\bar{x} =2.86 , 80.1%, n=121)
 - **Picnic areas** (\bar{x} =2.86, 99.3%, n=150)
 - **Baseball/softball fields** (\bar{x} =2.82, 96.7%, n=146)
 - **Fishing sites** (\bar{x} =2.68, 82.1%, n=124)
- **Golf courses and Hunting sites** were the only two facility types with mean scores less than a **2.50**.
 - **Golf courses** (\bar{x} =2.36, 64.2%, n=97)
 - **Hunting sites** (\bar{x} =2.32, 37.1%, n=56)

Table RO2.1a. One-Sample Statistics – Q1. Need of improvement

Facility Type	N	Mean	Std. Deviation	Std. Error Mean
Camping sites	71	3.45	1.263	0.150
Multi-use fields	140	3.39	1.397	0.118
Trails	147	3.39	1.368	0.113
Outdoor basketball courts	132	3.23	1.341	0.117
Historic/education sites	120	3.12	1.310	0.120
Boating and water sport access sites	86	3.09	1.428	0.154
Playgrounds	151	3.09	1.311	0.107
Nature park/areas	124	3.02	1.349	0.121
Tennis courts	135	3.00	1.440	0.124
Target shooting sites	58	2.97	1.337	0.176
Outdoor swimming pools	132	2.95	1.515	0.132
Gardens	123	2.94	1.456	0.131
Soccer fields	134	2.92	1.425	0.123
Football fields	106	2.86	1.444	0.140
Volleyball courts	121	2.86	1.287	0.117
Picnic areas	150	2.82	1.351	0.110
Baseball/softball fields	146	2.80	1.124	0.093
Fishing sites	124	2.69	1.409	0.127
Golf courses	97	2.36	1.284	0.130
Hunting sites	56	2.32	1.416	0.189

Chart RO2.1a.



Frequencies and percentages were tallied for all respondents based on those answering as well as based on the total sample (Table RO2.1b).

- **Multi-use fields** was the only facility type that had more “Extreme Need” responses than any other response.
 - **27.9%** (n=21, N=140) of those answering indicated an extreme need of improvement.
 - **25.8%** (n=21) of the total sample indicated an extreme need of improvement.
- **Hunting sites, Golf courses, Fishing sites, Football fields, and Tennis courts** all had more “No Need at All” responses than any other response.
 - **Hunting sites** (42.9%, n=24, N=56), **Golf courses** (37.1%, n=36, N=97), **Fishing sites** (29%, n=36, N=124), **Football fields** (26.4%, n=28, N=106), and **Tennis courts** (21.5%, n=29, N=135) all had “No Need at All” responses above **20%** based on those answering (i.e. facility is available).
 - **Hunting sites** (15.9%, n=24), **Golf courses** (23.8%, n=36), **Fishing sites** (23.8%, n=36), **Football fields** (18.5%, n=28), and **Tennis courts** (19.2%, n=29) all had “No Need at All Responses” responses above **15%** based on the total sample (N=151).

Table RO2.1b. Q1. Need of improvement Frequencies (percent of total sample, percent of those answering, and count)

Facility Type	No Need At All 1	2	3	4	Extreme Need 5
Baseball/softball fields	11.9% 12.3% (18)	29.1% 30.1% (44)	29.1% 30.1% (44)	19.2% 19.9% (29)	7.3% 7.5% (11)
Outdoor Basketball Courts	14.6% 16.7% (22)	9.3% 10.6% (14)	21.9% 25% (33)	24.5% 28% (37)	17.2% 19.7% (26)
Boating and water sport access sites	11.3% 19.8% (17)	8.6% 15.1% (13)	13.2% 23.3% (20)	11.3% 19.8% (17)	12.6% 22.1% (19)
Camping sites	5.3% 11.3% (8)	4% 8.5% (6)	13.2% 28.2% (20)	13.2% 28.2% (20)	11.3% 23.9% (17)
Fishing Sites	23.8% 29% (36)	13.2% 16.1% (20)	21.9% 26.6% (33)	10.6% 12.9% (16)	12.6% 15.3% (19)
Football fields	18.5% 26.4% (28)	10.6% 15.1% (16)	15.2% 21.7% (23)	13.9% 19.8% (21)	11.9% 17% (18)
Gardens	20.5% 25.2% (31)	9.9% 12.2% (15)	21.2% 26% (32)	13.2% 16.3% (20)	16.6% 20.3% (25)
Golf courses	23.8% 37.1% (36)	10.6% 16.5% (16)	16.6% 25.8% (25)	9.3% 14.4% (14)	4% 6.2% (6)
Historic/education sites	11.9% 15% (18)	13.9% 17.5% (21)	20.5% 25.8% (31)	19.2% 24.2% (29)	13.9% 17.5% (21)
Hunting sites	15.9% 42.9% (24)	6% 16.1% (9)	6.6% 17.9% (10)	4.6% 12.5% (7)	4% 10.7% (6)
Multi-use fields	14.6% 15.7% (22)	9.3% 10% (14)	19.9% 21.4% (30)	23.2% 25% (35)	25.8% 27.9% (39)
Picnic areas	22.5% 22.7% (34)	21.2% 21.3% (32)	19.2% 19.3% (29)	24.5% 24.7% (37)	11.9% 12% (18)
Playgrounds	15.9% 15.9% (24)	17.9% 17.9% (27)	23.8% 23.8% (36)	26.5% 26.5% (40)	15.9% 15.9% (24)
Soccer fields	21.9% 24.6% (33)	12.6% 14.2% (19)	20.5% 23.1% (31)	18.5% 20.9% (28)	15.2% 17.2% (23)
Outdoor swimming pools	24.5% 28% (37)	11.3% 12.9% (17)	13.2% 15.2% (20)	21.2% 24.2% (32)	17.2% 19.7% (26)
Tennis courts	19.2% 21.5%	16.6% 18.5%	16.6% 18.5%	19.2% 21.5%	17.9% 20%

Table RO2.1b. Q1. Need of improvement Frequencies (percent of total sample, percent of those answering, and count)

Facility Type	No Need At All 1	2	3	4	Extreme Need 5
	(29)	(25)	(25)	(29)	(27)
Trails	14.6% 15% (22)	9.9% 10.2% (15)	20.5% 21.1% (31)	27.2% 27.9% (41)	25.2% 25.9% (38)
Volleyball courts	17.9% 22.3% (27)	8.6% 10.7% (13)	30.5% 38% (46)	13.2% 16.5% (20)	9.9% 12.4% (15)
Target shooting sites	7.3% 19% (11)	6.6% 17.2% (10)	10.6% 27.6% (16)	7.9% 20.7% (12)	6% 15.5% (9)
Nature park/areas	16.6% 20.2% (25)	11.3% 13.7% (17)	21.2% 25.8% (32)	20.5% 25% (31)	12.6% 15.3% (19)

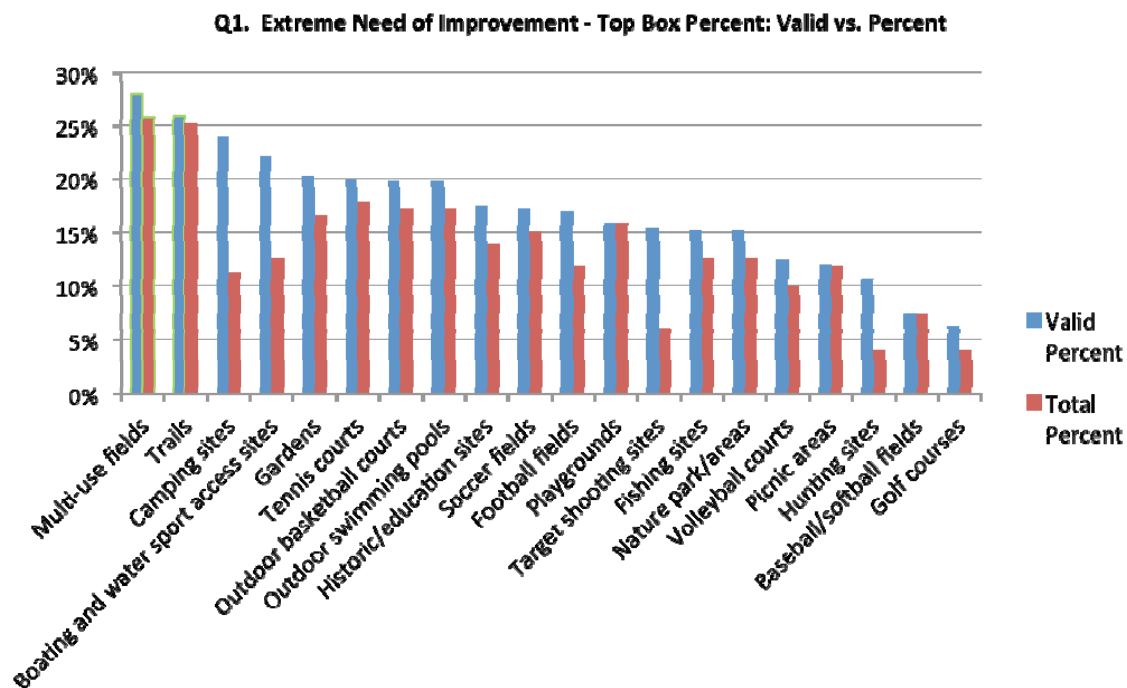
Need of Improvement Top Box Scores (percent of respondents that scored a 5 = “Extreme Need” for Need of Improvement) were computed for all facility types among those that answered (Valid Percent) as well as for the percentage that answered among the entire sample (Total Percent, including Missing values and respondents that answered Not Available) and sorted by Valid Percent (Table RO2.1c and Chart RO2.1b).

- **Multi-use fields** (27.9%, n=39) and **Trails** (25.9%, n=38) both had top box percentages **above 25%** for both valid and total percent, indicating a very large need of extreme improvement among all respondents.
- **Camping sites** (23.9%, n=17), **Boating and water sport access sites** (22.1%, n=19), **Gardens** (20.3%, n=25), and **Tennis courts** (20%, n=27) had top box percentages between **20%** and **25%** among respondents that answered, indicating a large need of extreme improvement.
 - Due to the lower availability of **Camping sites** (47% Availability, n=71) and **Boating and water sport access sites** (57% Availability, n=86), the total percentage of respondents indicating Extreme Need of Improvement is much lower overall, 11.3% (n=17) and 12.6% (n=19)
- **Outdoor basketball courts** and **Outdoor swimming pools** (19.7%, n=26), **Historic/education sites** (17.5%, n=21), **Soccer fields** (17.2%, n=23), **Football fields** (17.0%, n=18), **Playgrounds** (15.9%, n=24), **Target shooting sites** (15.5%, n=9), and **Fishing sites** and **Nature park/areas** (15.3%, n=19) all had top box percentages between **15%** and **20%** among respondents that answered, indicating a moderate to large need of extreme improvement.
 - Due to the lower availability of **Target shooting sites** (38.4% Availability, n=58), the total percentage of respondents indicating Extreme Need of Improvement is much lower overall at 6.0% (n=9).
- **Volleyball courts** (12.4%, n=15), **Picnic areas** (12.0%, n=18), **Hunting sites** (10.7%, n=6), **Baseball/softball fields** (7.5%, n=11), and **Golf courses** (6.2%, n=6) all had top box percentages between **0%** and **15%** among respondents that answered, indicating a lower need of extreme improvement.
 - Due to the lower availability of **Hunting sites** (37.1% Availability, n=56) and the somewhat limited availability of **Golf courses** (64.2% Availability, n=97), the total percentage of respondents indicating Extreme Need of Improvement is much lower overall at 4.0% (n=6).

Table RO2.1c. Q1. Need of Improvement – Extreme Need of Improvement – Top Box Percent (Valid and Total)

Facility Type	Extreme Need	Total Answering	Percent Answering	Valid Percent	Total Percent
Multi-use fields	39	140	92.7%	27.9%	25.8%
Trails	38	147	97.4%	25.9%	25.2%
Camping sites	17	71	47.0%	23.9%	11.3%
Boating and water sport access sites	19	86	57.0%	22.1%	12.6%
Gardens	25	123	81.5%	20.3%	16.6%
Tennis courts	27	135	89.4%	20.0%	17.9%
Outdoor basketball courts	26	132	87.4%	19.7%	17.2%
Outdoor swimming pools	26	132	87.4%	19.7%	17.2%
Historic/education sites	21	120	79.5%	17.5%	13.9%
Soccer fields	23	134	88.7%	17.2%	15.2%
Football fields	18	106	70.2%	17.0%	11.9%
Playgrounds	24	151	100.0%	15.9%	15.9%
Target shooting sites	9	58	38.4%	15.5%	6.0%
Fishing sites	19	124	82.1%	15.3%	12.6%
Nature park/areas	19	124	82.1%	15.3%	12.6%
Volleyball courts	15	121	80.1%	12.4%	9.9%
Picnic areas	18	150	99.3%	12.0%	11.9%
Hunting sites	6	56	37.1%	10.7%	4.0%
Baseball/softball fields	11	146	96.7%	7.5%	7.3%
Golf courses	6	97	64.2%	6.2%	4.0%

Chart RO2.1b.



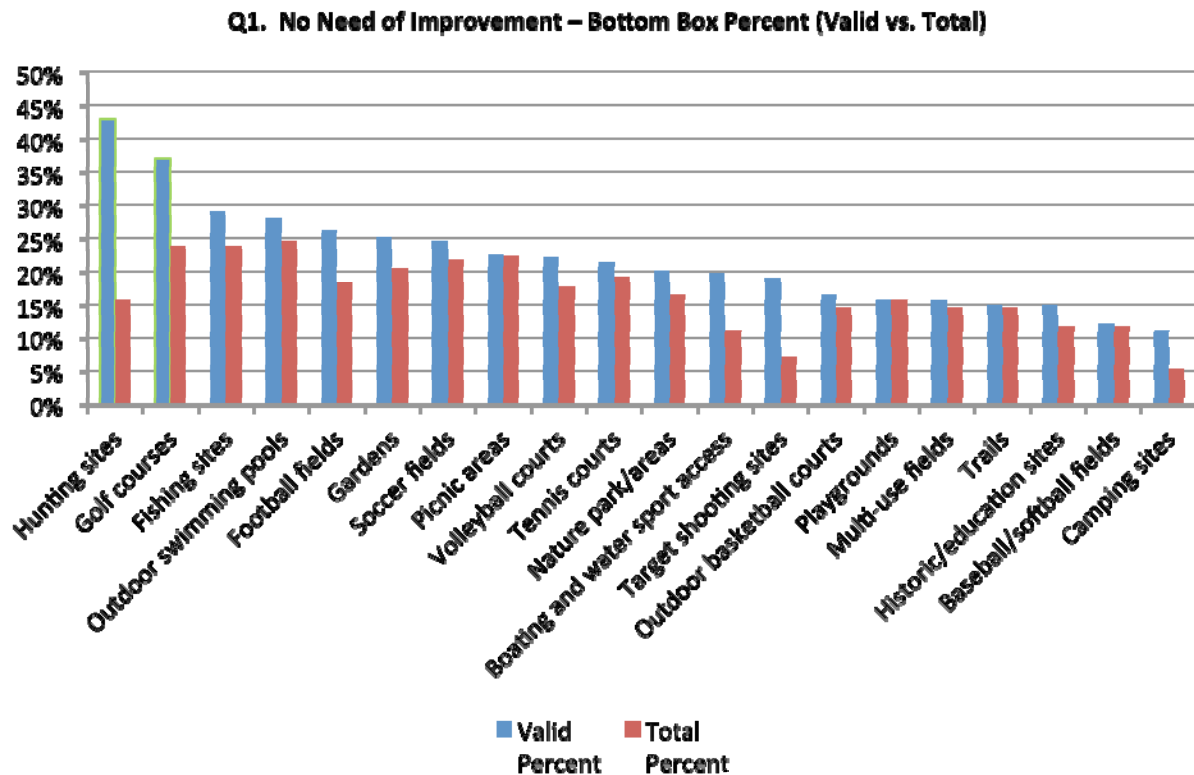
Need of Improvement Bottom Box Scores (percent of respondents that scored a 1 = “No Need at All” for Need of Improvement) were computed for all facility types among respondents that answered (Valid Percent) as well as for the percentage of respondents that answered among the entire sample (Total Percent, including Missing values and respondents that answered Not Available) and sorted by Valid Percent (Table RO2.1d and Chart RO2.1c).

- **Hunting sites** (42.9%, n=24) and **Golf courses** (37.1%, n=36) both had bottom box percentages **above 30%** among respondents that answered, indicating a high level of not needing improvement.
 - Due to the lower availability of **Hunting sites** (37.1% Availability, n=56) and the somewhat lower availability of **Golf courses** (64.2% Availability, n=97), the valid percentage is much higher than the total percentage, indicating a very low need of improvement among respondents with those facilities available.
- **Fishing sites** (29%, n=36), **Outdoor swimming pools** (28%, n=37), **Football fields** (26.4%, n=28), and **Gardens** (25.2%, n=31) all had bottom box percentages between **25% and 30%** among respondents that answered, indicating a high level of not needing improvement.
- **Soccer fields** (24.6%, n=33), **Picnic areas** (22.7%, n=34), **Volleyball courts** (22.3%, n=27), **Tennis courts** (21.5%, n=29) and **Nature park/areas** (20.2%, n=25) all had bottom box percentages between **20% and 25%** among respondents that answered, indicating a high level of not needing improvement.
- **Boating and water sport access sites** (19.8%, n=17), **Target shooting sites** (19.0%, n=11), **Outdoor basketball courts** (16.7%, n=22), **Playgrounds** (15.9%, n=24), **Multi-use fields** (15.7%, n=22), **Trails** (15.0%, n=22), **Historic/education sites** (15.0%, n=18), **Baseball/softball fields** (11.9%, n=18), and **Camping sites** (5.3%, n=8) all had bottom box percentages between **10% and 20%**, indicating a need for improvement.

Table RO2.1d. Q1. Need of Improvement – No Need of Improvement at All – Bottom Box Percent (Valid and Total)

Facility Type	No Need at All	Total Answering	Percent Answering	Valid Percent	Total Percent
Hunting sites	24	56	37.1%	42.9%	15.9%
Golf courses	36	97	64.2%	37.1%	23.8%
Fishing sites	36	124	82.1%	29.0%	23.8%
Outdoor swimming pools	37	132	87.4%	28.0%	24.5%
Football fields	28	106	70.2%	26.4%	18.5%
Gardens	31	123	81.5%	25.2%	20.5%
Soccer fields	33	134	88.7%	24.6%	21.9%
Picnic areas	34	150	99.3%	22.7%	22.5%
Volleyball courts	27	121	80.1%	22.3%	17.9%
Tennis courts	29	135	89.4%	21.5%	19.2%
Nature park/areas	25	124	82.1%	20.2%	16.6%
Boating and water sport access sites	17	86	57.0%	19.8%	11.3%
Target shooting sites	11	58	38.4%	19.0%	7.3%
Outdoor basketball courts	22	132	87.4%	16.7%	14.6%
Playgrounds	24	151	100.0%	15.9%	15.9%
Multi-use fields	22	140	92.7%	15.7%	14.6%
Trails	22	147	97.4%	15.0%	14.6%
Historic/education sites	18	120	79.5%	15.0%	11.9%
Baseball/softball fields	18	146	96.7%	12.3%	11.9%
Camping sites	8	71	47.0%	11.3%	5.3%

Chart RO2.1c.



Cross-tabs – Urban or Rural/Need of Improvement

Respondents were classified as either **urban or rural** (based on zip code), cross tabulated by **need of improvement**, and mean scores for urban and rural areas were tested for significant differences using an independent samples t-test (95% and 90%) with H_0 = null/no difference in improvement between urban and rural and H_1 = different improvement needs between urban and rural.

- **Golf courses** ($p=.086$) was the only facility type to show significant differences between urban and rural at the 90% level ($p < 0.10$ = H_0 rejected and H_1 accepted) (Table RO2.1e).
 - **Urban** respondents ($\bar{x} = 2.44$, $n=87$) scored higher than **Rural** respondents ($\bar{x} = 1.70$, $n=10$) for **Golf courses**, indicating that the need of improvement for **Golf courses** is significantly higher in urban areas than rural areas (Table RO2.1f)

Cross-tabs – Area Code/Need of Improvement

Respondents were classified by **area code**, cross tabulated by **need of improvement**, sorted high to low by overall mean (Table 1b), and mean scores were tested against each other for significance (95%) using an independent sample t-test, with H_0 = null/no difference in improvement and H_1 = different improvement needs (Table RO2.1g).

- **East-Central (636)** ($n=17$) area code had the most statistically significant differences, other regions, with 19 differences among nine facility types ($p < 0.05$ = H_0 rejected and H_1 accepted).

- **Camping sites** (\bar{x} =3.5, n=71) scored significantly higher in **East-Central (636)** (\bar{x} =4.3, n=10) compared to **Northeast-Central-Southeast (573)** (\bar{x} =3.1, n=16) and **Kansas City-West (816)** (\bar{x} =3.0, n=20).
- **Multi-use fields** (\bar{x} =3.4, n=140) scored significantly higher in area code **East-Central (636)** (\bar{x} =3.9, n=16) compared to **St. Louis-East (314)** (\bar{x} =3.1, n=34).
- **Historic/education sites** (\bar{x} =3.1, n=120) scored significantly higher in area code **(East-Central) (636)** (\bar{x} =3.8, n=13) compared to **St. Louis-East (314)** (\bar{x} =2.9, n=26).
- **Boating and water sport access sites** (\bar{x} =3.1, n=86) scored significantly higher in **East-Central (636)** (\bar{x} =4.0, n=10) compared to **Northeast-Central-Southeast (573)** (\bar{x} =2.8, n=21) and **Kansas City-West (816)** (\bar{x} =2.8, n=24).
- **Playgrounds** (\bar{x} =3.1, n=151) scored significantly higher in area code **East-Central (636)** (\bar{x} =3.8, n=17) compared to **St. Louis-East (314)** (\bar{x} =2.8, n=34) and **Southwest (417)** (\bar{x} =2.7, n=18).
- **Outdoor swimming pools** (\bar{x} =2.9, n=132) scored significantly higher in area code **East-Central (636)** (\bar{x} =3.3, n=13) compared to **Northeast-Central-Southeast (573)** (\bar{x} =1.8, n=8).
- **Gardens** (\bar{x} =2.9, n=123) scored significantly higher in area code **East-Central (636)** (\bar{x} =4.2, n=12) compared to **all other area codes**.
- **Soccer fields** (\bar{x} =2.9, n=134) scored significantly higher in area code **East-Central (636)** (\bar{x} =4.1, n=16) compared to **St. Louis-East (314)** (\bar{x} =2.8, n=31), **Southwest (417)** (\bar{x} =2.2, n=17), **Northeast-Central-Southeast (573)** (\bar{x} =2.8, n=30), and **Kansas City-West (816)** (\bar{x} =2.9, n=32).
- **Hunting sites** (\bar{x} =2.3, n=56) scored significantly higher in area code **East-Central (636)** (\bar{x} =3.0, n=8) compared to **Northwest (660)** (\bar{x} =1.2, n=5).
- **Kansas City-West (816)** (n=41) area code had the second highest number of statistically significant differences, as compared to other regions, with seven differences among four facility types ($p < 0.05 = H_0$ rejected and H_1 accepted).
 - **Multi-use fields** (\bar{x} =3.4, n=140) scored significantly higher in area code **Kansas City-West (816)** (\bar{x} =3.8, n=35) compared to **St. Louis-East (314)** (\bar{x} =3.1, n=34).
 - **Outdoor swimming pools** (\bar{x} =2.9, n=132) scored significantly higher in area code **Kansas City-West (816)** (\bar{x} =3.3, n=34) compared to **St. Louis-East (314)** (\bar{x} =2.4, n=29) and **Northwest (660)** (\bar{x} =1.8, n=8).
 - **Tennis courts** (\bar{x} =3.0, n=135) scored significantly higher in area code **Kansas City-West (816)** (\bar{x} =3.4, n=34) compared to **St. Louis-East (314)** (\bar{x} =2.7, n=31), **Southwest (417)** (\bar{x} =2.6, n=17), and **Northwest (660)** (\bar{x} =2.2, n=8).
 - **Volleyball courts** (\bar{x} =2.9, n=121) scored significantly higher in area code **Kansas City-West (816)** (\bar{x} =3.2, n=32) compared to **St. Louis-East (314)** (\bar{x} =2.5, n=29).
- **Northeast-Central-Southeast (573)** (n=33) area code had the third highest number of statistically significant differences, as compared to other regions, with six differences among three facility types ($p < 0.05 = H_0$ rejected and H_1 accepted).
 - **Target shooting sites** (\bar{x} =3.0, n=58) scored significantly higher in area code **Northeast-Central-Southeast (573)** (\bar{x} =3.8, n=16) compared to **East-Central (636)** (\bar{x} =2.6, n=8), **Northwest (660)** (\bar{x} =2.2, n=5), and **Kansas City-West** (\bar{x} =2.4, n=12).
 - **Outdoor swimming pools** (\bar{x} =2.9, n=132) scored significantly higher in area code **Northeast-Central-Southeast (573)** (\bar{x} =3.2, n=30) compared to **St. Louis-East (314)** (\bar{x} =2.4, n=29) and **Northwest (660)** (\bar{x} =1.8, n=8).
 - **Hunting sites** (\bar{x} =2.3, n=56) scored significantly higher in area code **Northeast-Central-Southeast (573)** (\bar{x} =2.3, n=15) compared to **Northwest (660)** (\bar{x} =1.2, n=5).

- **Northwest (660)** (n=8) had the fourth highest number of statistically significant differences, as compared to other regions, with four differences among one facility type ($p < 0.05 = H_0$ rejected and H_1 accepted).
 - **Trails** ($\bar{x} = 3.4$, n=147) scored significantly higher in area code **Northwest (660)** ($\bar{x} = 4.5$, n=8) compared to **all other area codes except East-Central (636)**

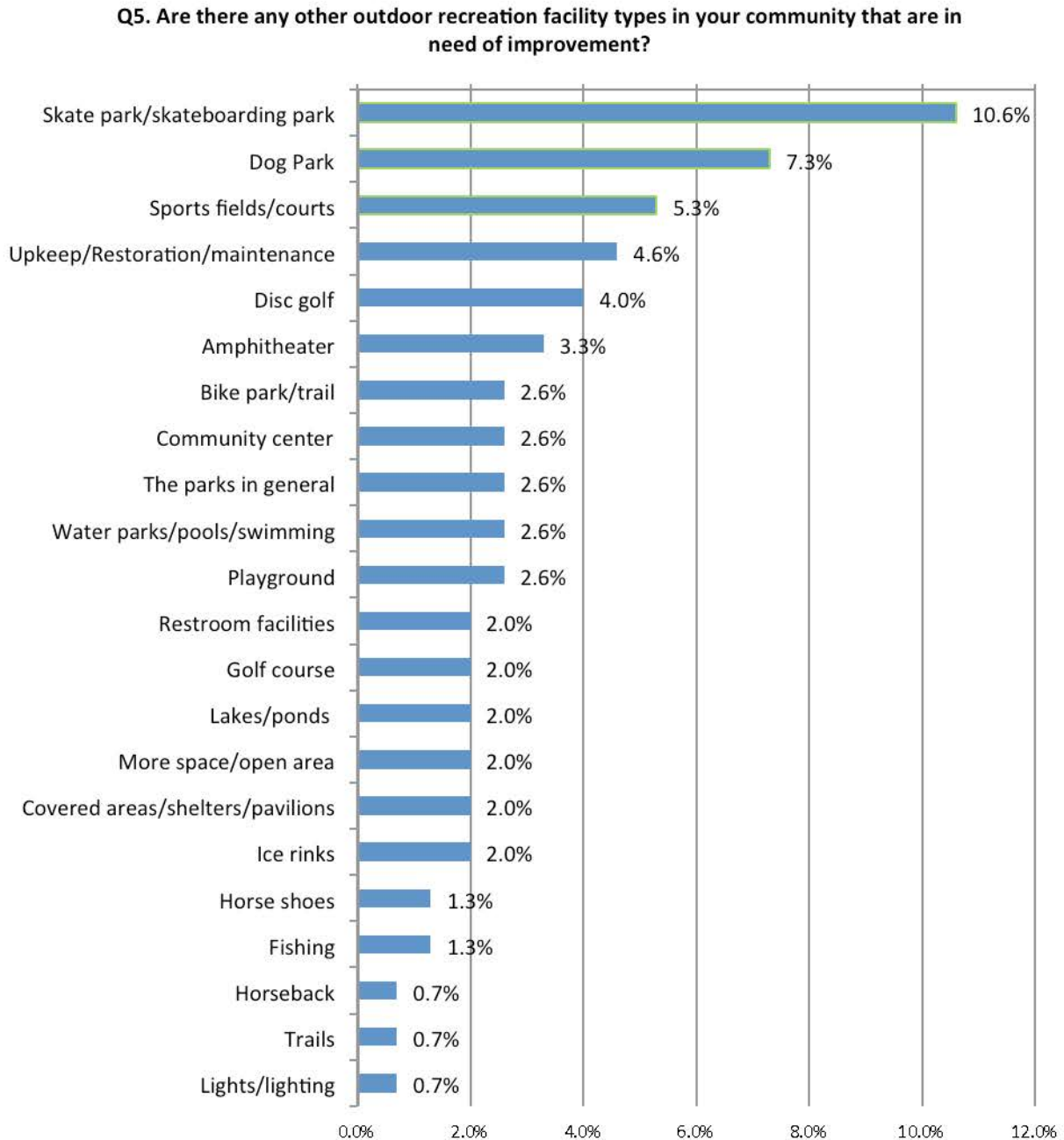
Respondents were asked the **open-ended question “Are there any other outdoor recreation facility types in your community that are in need of improvement?”** Responses were coded, tabulated, and sorted by frequency from high to low (Table RO2.1h and Chart RO2.1h).

- **Nothing** (51.7%, n=78) was mentioned by more than **50%** of respondents.
- **Skate park/skateboarding park** (10.6%, n=16) was the only facility type mentioned by more than **10%** of respondents.
- **Dog Park** (7.3%, n=11), and **Sports fields/courts** (5.3%, n=8) were the only other facilities to be mentioned by more than **5%** of respondents.

Table RO2.1h. Q5 Frequencies (open ended) – Are there any other outdoor recreation facility types in your community that are in need of improvement?

Code	Response	Responses		Percent of Cases
		N	Percent	
10	Skate park/skateboarding park	16	8.70%	10.60%
11	Dog Park	11	6.00%	7.30%
21	Sports fields/courts	8	4.40%	5.30%
38	Upkeep/Restoration/maintenance	7	3.80%	4.60%
14	Disc golf	6	3.30%	4.00%
17	Amphitheater	5	2.70%	3.30%
12	Bike park/trail	4	2.20%	2.60%
16	Community center	4	2.20%	2.60%
19	The parks in general	4	2.20%	2.60%
20	Water parks/pools/swimming	4	2.20%	2.60%
24	Playground	4	2.20%	2.60%
13	Restroom facilities	3	1.60%	2.00%
15	Golf course	3	1.60%	2.00%
18	Lakes/ponds	3	1.60%	2.00%
23	More space/open area	3	1.60%	2.00%
25	Covered areas/shelters/pavilions	3	1.60%	2.00%
26	Ice rinks	3	1.60%	2.00%
22	Horse shoes	2	1.10%	1.30%
101	Fishing	2	1.10%	1.30%
27	Horseback	1	0.50%	0.70%
28	Trails	1	0.50%	0.70%
39	Lights/lighting	1	0.50%	0.70%
96	Nothing	78	42.60%	51.70%
99	Other	7	3.80%	4.60%
	Total	183	100.00%	121.20%

Chart RO2.1h.



3. Research Question 3 (RQ3)

- *What types of outdoor recreation facilities and activities are popular in Missouri?*

Research Objective 3.1 (RO3.1)

- **Determine the popularity of local outdoor recreation facilities in Missouri over the past five years.**

All respondents were asked to rate the popularity of local facilities over the last five years using an ordinal scale from -3 to 3, where -3 = "Popularity decreased a lot," -2 = "Popularity decreased," -1 = "Popularity decreased a little," 0 = "No change in popularity," 1 = "Popularity increased a little," 2 = "Popularity increased," and 3 = "Popularity increased a lot". All respondents provided valid answers and there were no missing values.

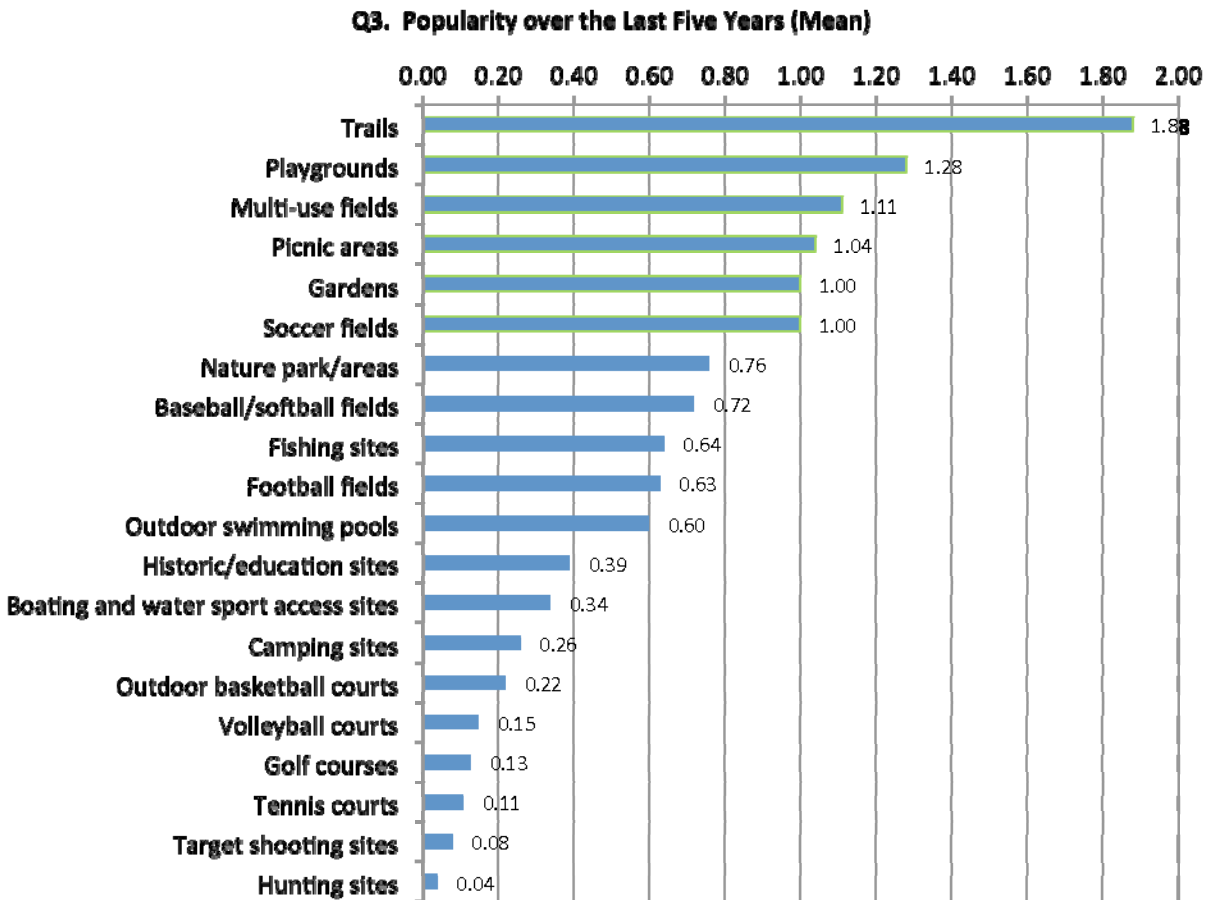
Mean scores were computed for all facility types and sorted from high to low (Table RO3.1a and Chart RO3.1a).

- **Trails** (\bar{x} =1.88), **Playgrounds** (\bar{x} =1.28), **Multi-use fields** (\bar{x} =1.11), **Picnic areas** (\bar{x} =1.04), **Gardens** and **Soccer fields** (\bar{x} =1.00) all had mean scores between **1.0** and **2.0**, indicating that popularity has increased for those facility types over the last five years.
 - **Trails** had the lowest standard deviation at **1.107** indicating low variance among **Trail** popularity.
- All other facility types had mean scores between **0.0** and **1.0**.
 - **Target shooting sites** was the only facility type with standard deviation below 1.0, at **0.942**, indicating low variance among **Target shooting site** popularity.

Table RO3.1a. Statistics – Q3. Popularity over the Last Five years

Facility Type	N	Mean	Std. Deviation	Std. Error Mean
Trails	151	1.88	1.107	0.090
Playgrounds	151	1.28	1.197	0.097
Multi-use fields	151	1.11	1.307	0.106
Picnic areas	151	1.04	1.221	0.099
Gardens	151	1.00	1.451	0.118
Soccer fields	151	1.00	1.414	0.115
Nature park/areas	151	0.76	1.198	0.098
Baseball/softball fields	151	0.72	1.383	0.113
Fishing sites	151	0.64	1.313	0.107
Football fields	151	0.63	1.412	0.115
Outdoor swimming pools	151	0.60	1.470	0.120
Historic/education sites	151	0.39	1.194	0.097
Boating and water sport access sites	151	0.34	1.189	0.097
Camping sites	151	0.26	1.251	0.102
Outdoor basketball courts	151	0.22	1.089	0.089
Volleyball courts	151	0.15	1.246	0.101
Golf courses	151	0.13	1.224	0.100
Tennis courts	151	0.11	1.421	0.116
Target shooting sites	151	0.08	0.942	0.077
Hunting sites	151	0.04	1.221	0.099

Chart RO3.1a.



Frequencies and percentages were tallied for all respondents (Table RO3.1b).

- **Trails** was the only facility type that had a higher percentage of “Increased a Lot” responses than any other response, with **35.8%** (n=54) of respondents indicating that the popularity of **Trails** has increased a lot in the past five years.
- **Playgrounds** had a larger percentage of “Increased” responses than any other response, with **35.8%** (n=54) respondents indicating that the popularity of **Playgrounds** has increased over the past five years.
- **Multi-use fields** had a larger percentage of “Increased a Little” responses than any other response, with **28.5%** (n=43) respondents indicating that the popularity of **Multi-use fields** has increased a little.

Table RO3.1b. Q3. Popularity over the Last Five Years – Frequencies

Facility Type	Decreased a Lot	Decreased	Decreased a Little	No Change	Increased a Little	Increased	Increased a Lot
Baseball/softball fields	0.7% (1)	3.3% (5)	13.9% (21)	32.5% (49)	17.9% (27)	19.2% (29)	12.6% (19)
Outdoor basketball courts	2% (3)	4.6% (7)	10.6% (16)	48.3% (73)	21.9% (33)	11.9% (18)	0.7% (1)
Boating and water sport access sites	3.3% (5)	2.6% (4)	4% (6)	57.6% (87)	17.2% (26)	9.3% (14)	6% (9)
Camping sites	3.3% (5)	4% (6)	7.3% (11)	57% (86)	12.6% (19)	9.3% (14)	6.6% (10)
Fishing sites	1.3% (2)	4% (6)	5.3% (8)	45.7% (69)	17.2% (26)	15.2% (23)	11.3% (17)
Football fields	0.7% (1)	5.3% (8)	10.6% (16)	41.1% (62)	11.9% (18)	17.2% (26)	13.2% (20)
Gardens	2% (3)	3.3% (5)	5.3% (8)	29.8% (45)	20.5% (31)	19.9% (30)	19.2% (29)
Golf courses	3.3% (5)	6.6% (10)	10.6% (16)	49% (74)	17.2% (26)	10.6% (16)	2.6% (4)
Historic/education sites	0.7% (1)	4.6% (7)	11.3% (17)	46.4% (70)	17.9% (27)	13.9% (21)	5.3% (8)
Hunting sites	5.3% (8)	5.3% (8)	5.3% (8)	62.9% (95)	11.3% (17)	5.3% (8)	4.6% (7)
Multi-use fields	1.3% (2)	2% (3)	6% (9)	21.9% (33)	28.5% (43)	25.2% (38)	15.2% (23)
Picnic areas	0.0% (0)	2% (3)	5.3% (8)	31.8% (48)	21.2% (32)	27.2% (41)	12.6% (19)
Playgrounds	0.7% (1)	1.3% (2)	4% (6)	20.5% (31)	23.8% (36)	35.8% (54)	13.9% (21)
Soccer fields	1.3% (2)	3.3% (5)	4.6% (7)	33.8% (51)	17.2% (26)	21.2% (32)	18.5% (28)
Outdoor swimming pools	4.6% (7)	3.3% (5)	6.6% (10)	38.4% (58)	17.2% (26)	19.2% (29)	10.6% (16)
Tennis courts	4.6% (7)	9.3% (14)	13.9% (21)	36.4% (55)	17.9% (27)	13.9% (21)	4% (6)
Trails	0% (0)	0% (0)	3.3% (5)	9.9% (15)	17.9% (27)	33.1% (50)	35.8% (54)
Volleyball courts	3.3% (5)	5.3% (8)	12.6% (19)	50.3% (76)	12.6% (19)	12.6% (19)	3.3% (5)
Target shooting sites	2.6% (4)	3.3% (5)	3.3% (5)	74.2% (112)	9.3% (14)	5.3% (8)	2% (3)
Nature park/areas	0.7% (1)	2.6% (4)	4.6% (7)	41.7% (63)	20.5% (31)	21.9% (33)	7.9% (12)

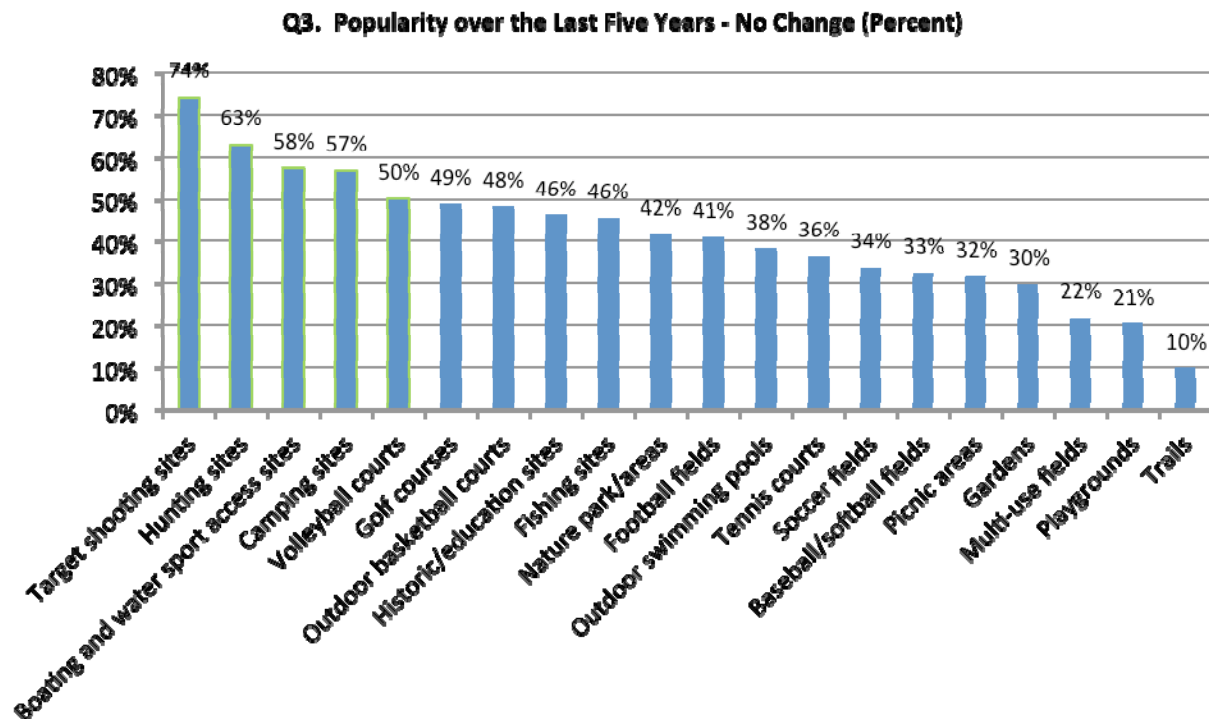
Popularity over the Last Five Years frequencies were sorted by the percentage of responses indicating “No Change” and sorted from high to low (Table RO3.1c and Chart RO3.1b).

- **Target shooting sites** (74.2%, n=112), **Hunting sites** (62.9%, n=95), **Golf courses** (57.6%, n=87), **Boating and water access sites** (57.6%, n=87), **Camping sites** (57%, n=86), and **Volleyball courts** (50.3%, 76) all had **50%** or more “No Change” responses, indicating that the popularity of those facilities over the last five years has remained the same.

Table RO3.1c. Q3. Popularity over the Last Five Years – Frequencies - No Change in Popularity

Facility Type	Decreased a Lot	Decreased	Decreased a Little	No Change	Increased a Little	Increased	Increased a Lot
Target shooting sites	2.6% (4)	3.3% (5)	3.3% (5)	74.2% (112)	9.3% (14)	5.3% (8)	2% (3)
Hunting sites	5.3% (8)	5.3% (8)	5.3% (8)	62.9% (95)	11.3% (17)	5.3% (8)	4.6% (7)
Boating and water sport access sites	3.3% (5)	2.6% (4)	4% (6)	57.6% (87)	17.2% (26)	9.3% (14)	6% (9)
Camping sites	3.3% (5)	4% (6)	7.3% (11)	57% (86)	12.6% (19)	9.3% (14)	6.6% (10)
Volleyball courts	3.3% (5)	5.3% (8)	12.6% (19)	50.3% (76)	12.6% (19)	12.6% (19)	3.3% (5)
Golf courses	3.3% (5)	6.6% (10)	10.6% (16)	49% (74)	17.2% (26)	10.6% (16)	2.6% (4)
Outdoor basketball courts	2% (3)	4.6% (7)	10.6% (16)	48.3% (73)	21.9% (33)	11.9% (18)	0.7% (1)
Historic/education sites	0.7% (1)	4.6% (7)	11.3% (17)	46.4% (70)	17.9% (27)	13.9% (21)	5.3% (8)
Fishing sites	1.3% (2)	4% (6)	5.3% (8)	45.7% (69)	17.2% (26)	15.2% (23)	11.3% (17)
Nature park/areas	0.7% (1)	2.6% (4)	4.6% (7)	41.7% (63)	20.5% (31)	21.9% (33)	7.9% (12)
Football fields	0.7% (1)	5.3% (8)	10.6% (16)	41.1% (62)	11.9% (18)	17.2% (26)	13.2% (20)
Outdoor swimming pools	4.6% (7)	3.3% (5)	6.6% (10)	38.4% (58)	17.2% (26)	19.2% (29)	10.6% (16)
Tennis courts	4.6% (7)	9.3% (14)	13.9% (21)	36.4% (55)	17.9% (27)	13.9% (21)	4% (6)
Soccer fields	1.3% (2)	3.3% (5)	4.6% (7)	33.8% (51)	17.2% (26)	21.2% (32)	18.5% (28)
Baseball/softball fields	0.7% (1)	3.3% (5)	13.9% (21)	32.5% (49)	17.9% (27)	19.2% (29)	12.6% (19)
Picnic areas	0% (0)	2% (3)	5.3% (8)	31.8% (48)	21.2% (32)	27.2% (41)	12.6% (19)
Gardens	2% (3)	3.3% (5)	5.3% (8)	29.8% (45)	20.5% (31)	19.9% (30)	19.2% (29)
Multi-use fields	1.3% (2)	2% (3)	6% (9)	21.9% (33)	28.5% (43)	25.2% (38)	15.2% (23)
Playgrounds	0.7% (1)	1.3% (2)	4% (6)	20.5% (31)	23.8% (36)	35.8% (54)	13.9% (21)
Trails	0% (0)	0% (0)	3.3% (5)	9.9% (15)	17.9% (27)	33.1% (50)	35.8% (54)

Chart RO3.1b.



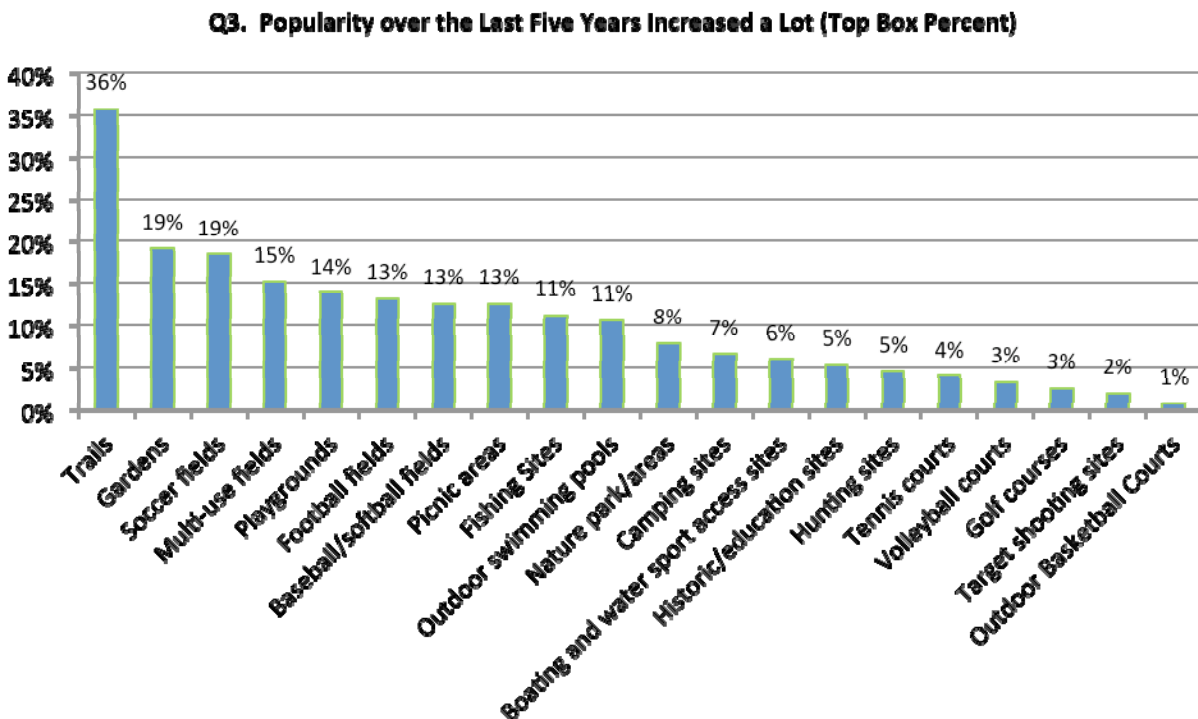
Popularity over the Last Five Years frequencies were sorted by the percentage of responses indicating “Increased a Lot” (i.e. popularity has increased a lot over the last five years) and sorted from high to low (Table RO3.1d and Chart RO3.1c).

- **Trails** had the highest top box percentage at **35.8%** (n=54), meaning that more than 1/3rd of respondents indicated that popularity for **Trails** has increased a lot in the in past five years. No other facility type received more than 19.2% “Much Higher” responses, a 16.6% difference, indicating that the popularity of **Trails** has increased a lot over the last five years, more than any other type of facility.
- **Gardens** (19.2%, n=29), **Soccer fields** (18.5%, n=28), and **Multi-use fields** (15.2%, n=23) all had top box percentages between **15%** and **20%**, indicating that the popularity of **Gardens**, **Soccer fields** and **Multi-use fields** has increased a lot over the past five years.
- **Playgrounds** (13.9%, n=21), **Football fields** (13.2%, n=20), **Baseball/softball fields** and **Picnic areas** (12.6%, n=19), and **Fishing sites** (11.3%, n=17) all had top box percentages between **10%** and **15%**, indicating that the popularity of **Playgrounds**, **Football fields**, **Baseball/softball fields** and **Picnic areas**, and **Fishing sites** has increased a lot, but not as much as the above mentioned facility types.

Table RO3.1d. Q3. Popularity over the Last Five Years – Frequencies – Popularity Increased a Lot (Top Box Percent)

Facility Type	Decreased a Lot	Decreased	Decreased a Little	No Change	Increased a Little	Increased	Increased a Lot
Trails	0% (0)	0% (0)	3.3% (5)	9.9% (15)	17.9% (27)	33.1% (50)	35.8% (54)
Gardens	2% (3)	3.3% (5)	5.3% (8)	29.8% (45)	20.5% (31)	19.9% (30)	19.2% (29)
Soccer fields	1.3% (2)	3.3% (5)	4.6% (7)	33.8% (51)	17.2% (26)	21.2% (32)	18.5% (28)
Multi-use fields	1.3% (2)	2% (3)	6% (9)	21.9% (33)	28.5% (43)	25.2% (38)	15.2% (23)
Playgrounds	0.7% (1)	1.3% (2)	4% (6)	20.5% (31)	23.8% (36)	35.8% (54)	13.9% (21)
Football fields	0.7% (1)	5.3% (8)	10.6% (16)	41.1% (62)	11.9% (18)	17.2% (26)	13.2% (20)
Baseball/softball fields	0.7% (1)	3.3% (5)	13.9% (21)	32.5% (49)	17.9% (27)	19.2% (29)	12.6% (19)
Picnic areas	0% (0)	2% (3)	5.3% (8)	31.8% (48)	21.2% (32)	27.2% (41)	12.6% (19)
Fishing sites	1.3% (2)	4% (6)	5.3% (8)	45.7% (69)	17.2% (26)	15.2% (23)	11.3% (17)
Outdoor swimming pools	4.6% (7)	3.3% (5)	6.6% (10)	38.4% (58)	17.2% (26)	19.2% (29)	10.6% (16)
Nature park/areas	0.7% (1)	2.6% (4)	4.6% (7)	41.7% (63)	20.5% (31)	21.9% (33)	7.9% (12)
Camping sites	3.3% (5)	4% (6)	7.3% (11)	57% (86)	12.6% (19)	9.3% (14)	6.6% (10)
Boating and water sport access sites	3.3% (5)	2.6% (4)	4% (6)	57.6% (87)	17.2% (26)	9.3% (14)	6% (9)
Historic/education sites	0.7% (1)	4.6% (7)	11.3% (17)	46.4% (70)	17.9% (27)	13.9% (21)	5.3% (8)
Hunting sites	5.3% (8)	5.3% (8)	5.3% (8)	62.9% (95)	11.3% (17)	5.3% (8)	4.6% (7)
Tennis courts	4.6% (7)	9.3% (14)	13.9% (21)	36.4% (55)	17.9% (27)	13.9% (21)	4% (6)
Volleyball courts	3.3% (5)	5.3% (8)	12.6% (19)	50.3% (76)	12.6% (19)	12.6% (19)	3.3% (5)
Golf courses	3.3% (5)	6.6% (10)	10.6% (16)	49% (74)	17.2% (26)	10.6% (16)	2.6% (4)
Target shooting sites	2.6% (4)	3.3% (5)	3.3% (5)	74.2% (112)	9.3% (14)	5.3% (8)	2% (3)
Outdoor basketball courts	2% (3)	4.6% (7)	10.6% (16)	48.3% (73)	21.9% (33)	11.9% (18)	0.7% (1)

Chart RO3.1c.



Cross-tabs – Urban or Rural/Popularity Last Five Years

Respondents were classified as either **urban or rural** (based on zip code), cross tabulated by **popularity over the last five years**, and mean scores between urban and rural areas were tested for significant differences using an independent samples t-test (95% and 90%) with H_0 = null/no difference between rural and urban popularity over the last five years and H_1 = difference in rural and urban popularity over the last five years (Table RO3.1e and Table RO3.1f).

- **Picnic areas** ($p=.018$) and **Tennis courts** ($p=0.040$) were the only facility types to show significant differences between urban and rural at the 95% level ($p < 0.05$ = H_0 rejected and H_1 accepted).
 - **Urban** respondents ($\bar{x} = 1.12$, $n=136$) scored higher than **Rural** respondents ($\bar{x} = 0.33$, $n=15$), indicating that the popularity increase of **Picnic areas** over the last five years has been significantly higher in urban areas than rural areas.
 - **Urban** respondents ($\bar{x} = 0.19$, $n=136$) scored higher than **Rural** respondents ($\bar{x} = -0.60$, $n=15$), indicating that the popularity increase of **Tennis courts** over the last five years has been higher in **urban** areas - remaining the same to slightly increasing – while slightly decreasing in popularity in **rural** areas.
- **Outdoor swimming pools** ($p=0.063$) was the only other facility type to show significant differences between urban and rural at the 90% level ($p < 0.10$ = H_0 rejected and H_1 accepted).
 - **Urban** respondents ($\bar{x} = 0.68$, $n=136$) scored higher than **Rural** respondents ($\bar{x} = -0.37$, $n=15$), indicating that the popularity increase of **Outdoor swimming pools** over the last five years has been higher in **urban** areas - remaining the same to slightly increasing – while very slightly decreasing or not changing in popularity in **rural** areas.

Cross-tabs – Area Code/Popularity Last Five Years

Respondents were classified by **area code**, cross tabulated by **popularity over the last five years**, sorted high to low by overall mean (Table RO3.1a), and mean scores were tested against each other for significance (95%) using an independent sample t-test, with H_0 = null/no difference in popularity over the last five years and H_1 = difference in popularity over the last five years (Table RO3.1g).

- **Southwest (417)** (n=18) area code had the most statistically significant differences, as compared to other regions, with 13 differences among seven facility types ($p < 0.05$ = H_0 rejected and H_1 accepted).
 - **Gardens** (\bar{x} =1.0, n=151) scored significantly higher in **Southwest (417)** (\bar{x} =1.7, n=18) compared to **Northeast-Central-Southeast (573)** (\bar{x} =0.6, n=33) and **Kansas City-West** (\bar{x} =0.6, n=18).
 - **Nature parks/areas** (\bar{x} =0.8, n=151) scored significantly higher in **Southwest (417)** (\bar{x} =1.3, n=18) compared to **Northwest (660)** (\bar{x} =0.1, n=8) and **Kansas City-West (816)** (\bar{x} =0.5, n=8).
 - **Baseball/softball fields** (\bar{x} =0.7, n=151) scored significantly higher in **Southwest (417)** (\bar{x} =1.3, n=18) compared to **St. Louis-East (314)** (\bar{x} =0.0, n=34).
 - **Boating and water sport access sites** (\bar{x} =0.3, n=151) scored significantly higher in **Southwest (417)** (\bar{x} =0.9, n=18) compared to **St. Louis-East (314)** (\bar{x} =0.2, n=34), **Northeast-Central-Southeast (573)** (\bar{x} =0.3, n=33), and **Kansas City-West** (\bar{x} =0.1, n=41).
 - **Camping sites** (\bar{x} =0.3, n=151) scored significantly higher in **Southwest (417)** (\bar{x} =0.7, n=18) compared to **St. Louis-East (314)** (\bar{x} =0.0, n=34), **Northeast-Central-Southeast (573)** (\bar{x} =-0.3, n=33).
 - **Golf courses** (\bar{x} =0.1, n=151) scored significantly higher in **Southwest (417)** (\bar{x} =0.5, n=18) compared to **East-Central (636)** (\bar{x} =-0.4, n=17).
 - **Tennis courts** (\bar{x} =0.1, n=151) scored significantly higher in **Southwest (417)** (\bar{x} =0.8, n=18) compared to **St. Louis-East (314)** (\bar{x} =-0.1, n=34), and **Northwest (660)** (\bar{x} =-0.4, n=8).
- **Northwest (660)** (n=8) area code had 10 statistically significant differences, as compared to other regions, among five facility types ($p < 0.05$ = H_0 rejected and H_1 accepted).
 - **Soccer fields** (\bar{x} =1.0, n=151) scored significantly higher in **Northwest (660)** (\bar{x} =1.9, n=8) compared to **Northeast-Central-Southeast (573)** (\bar{x} =0.6, n=33).
 - **Outdoor swimming pools** (\bar{x} =0.6, n=151) scored significantly higher in **Northwest (660)** (\bar{x} =1.6, n=8) compared to **St. Louis-East (314)** (\bar{x} =0.4, n=34) and **Northeast-Central-Southeast (573)** (\bar{x} =0.3, n=33).
 - **Camping sites** (\bar{x} =0.3, n=151) scored significantly higher in **Northwest (660)** (\bar{x} =1.1, n=8) compared to **St. Louis-East (314)** (\bar{x} =0.0, n=34) and **Northeast-Central-Southeast (573)** (\bar{x} =-0.3, n=33).
 - **Outdoor basketball courts** (\bar{x} =0.2, n=151) scored significantly higher in **Northwest (660)** (\bar{x} =0.5, n=8) compared to **Southwest (417)** (\bar{x} =0.0, n=18).
 - **Golf courses** (\bar{x} =0.1, n=151) scored significantly higher in **Northwest (660)** (\bar{x} =1.0, n=8) compared to **St. Louis-East (314)** (\bar{x} =0.0, n=34) and **East-Central (636)** (\bar{x} =1.1, n=17).
 - **Target shooting sites** (\bar{x} =0.1, n=151) scored significantly higher in **Northwest (660)** (\bar{x} =1.6, n=8) compared to **St. Louis-East (314)** (\bar{x} =-0.2, n=34) and **Kansas City-West (816)** (\bar{x} =0.0, n=34).
- **East-Central (636)** (n=17) area code had eight statistically significant differences, as compared to other regions, among five facility types ($p < 0.05$ = H_0 rejected and H_1 accepted).

- **Multi-use fields** (\bar{x} =1.1, n=151) scored significantly higher in **East-Central (636)** (\bar{x} =1.7, n=17) compared to **Southwest (417)** (\bar{x} =0.9, n=18).
- **Soccer fields** (\bar{x} =1.0, n=151) scored significantly higher in **East-Central (636)** (\bar{x} =1.4, n=17) compared to **Northeast-Central-Southeast (573)** (\bar{x} =0.6, n=33).
- **Baseball/softball fields** (\bar{x} =0.7, n=151) scored significantly higher in **East-Central (636)** (\bar{x} =1.1, n=17) compared to **St. Louis-East (314)** (\bar{x} =0.0, n=34).
- **Historic/education sites** (\bar{x} =0.4, n=151) scored significantly higher in **East-Central (636)** (\bar{x} =0.9, n=17) compared to **Northeast-Central-Southeast (573)** (\bar{x} =0.1, n=33), and **Kansas City-West (816)** (\bar{x} =0.2, n=41).
- **Camping sites** (\bar{x} =0.3, n=151) scored significantly higher in **East-Central (636)** (\bar{x} =1.1, n=17) compared to **St. Louis-East (314)** (\bar{x} =0.0, n=34), **Northeast-Central-Southeast (573)** (\bar{x} =-0.3, n=33), and **Kansas City-West (816)** (\bar{x} =0.2, n=41).
- **Northeast-Central-Southeast (573)** (n=33) had five statistically significant differences, as compared to other regions, among three facility types ($p < 0.05 = H_0$ rejected and H_1 accepted).
 - **Baseball/softball fields** (\bar{x} =0.7, n=151) scored significantly higher in **Northeast-Central-Southeast (573)** (\bar{x} =0.8, n=33) compared to **St. Louis-East (314)** (\bar{x} =0.0, n=34).
 - **Football fields** (\bar{x} =0.6, n=151) scored significantly higher in **Northeast-Central-Southeast (573)** (\bar{x} =1.1, n=33) compared to **St. Louis-East (314)** (\bar{x} =0.2, n=34) and **Southwest (417)** (\bar{x} =0.3, n=18).
 - **Target shooting sites** (\bar{x} =0.1, n=151) scored significantly higher in **Northeast-Central-Southeast (573)** (\bar{x} =0.3, n=33) compared to **St. Louis-East (314)** (\bar{x} =-0.2, n=34) and **Kansas City-West (816)** (\bar{x} =0.0, n=41).
- **St. Louis-East (314)** (n=34) had two statistically significant differences, as compared to other regions, among one facility ($p < 0.05 = H_0$ rejected and H_1 accepted).
 - **Gardens** (\bar{x} =1.0, n=151) scored significantly higher in **St. Louis-East (314)** (\bar{x} =1.4, n=18) compared to **Northeast-Central-Southeast (573)** (\bar{x} =0.6, n=33) and **Kansas City-West** (\bar{x} =0.6, n=18).
- **Kansas City-West (816)** (n=41) had one statistically significant difference, as compared to other regions, among one facility type ($p < 0.05 = H_0$ rejected and H_1 accepted).
 - **Baseball/softball fields** (\bar{x} =0.7, n=151) scored significantly higher **Kansas City-West (816)** (\bar{x} =0.8, n=41) compared to **St. Louis-East (314)** (\bar{x} =0.0, n=34).

Research Objective 3.2 (RO3.2)

- **Determine the popularity of local outdoor recreation facilities in Missouri in the next five years.**

All respondents were asked to rate the popularity of local facilities in the last five years using an ordinal scale from -3 to 3, where -3 = "Popularity decreasing a lot," -2 = "Popularity decreasing," -1 = "Popularity decreasing a little," 0 = "Popularity not changing," 1 = "Popularity increasing a little," 2 = "Popularity increasing," and 3 = "Popularity increasing a lot". All respondents provided valid answers and there were no missing values.

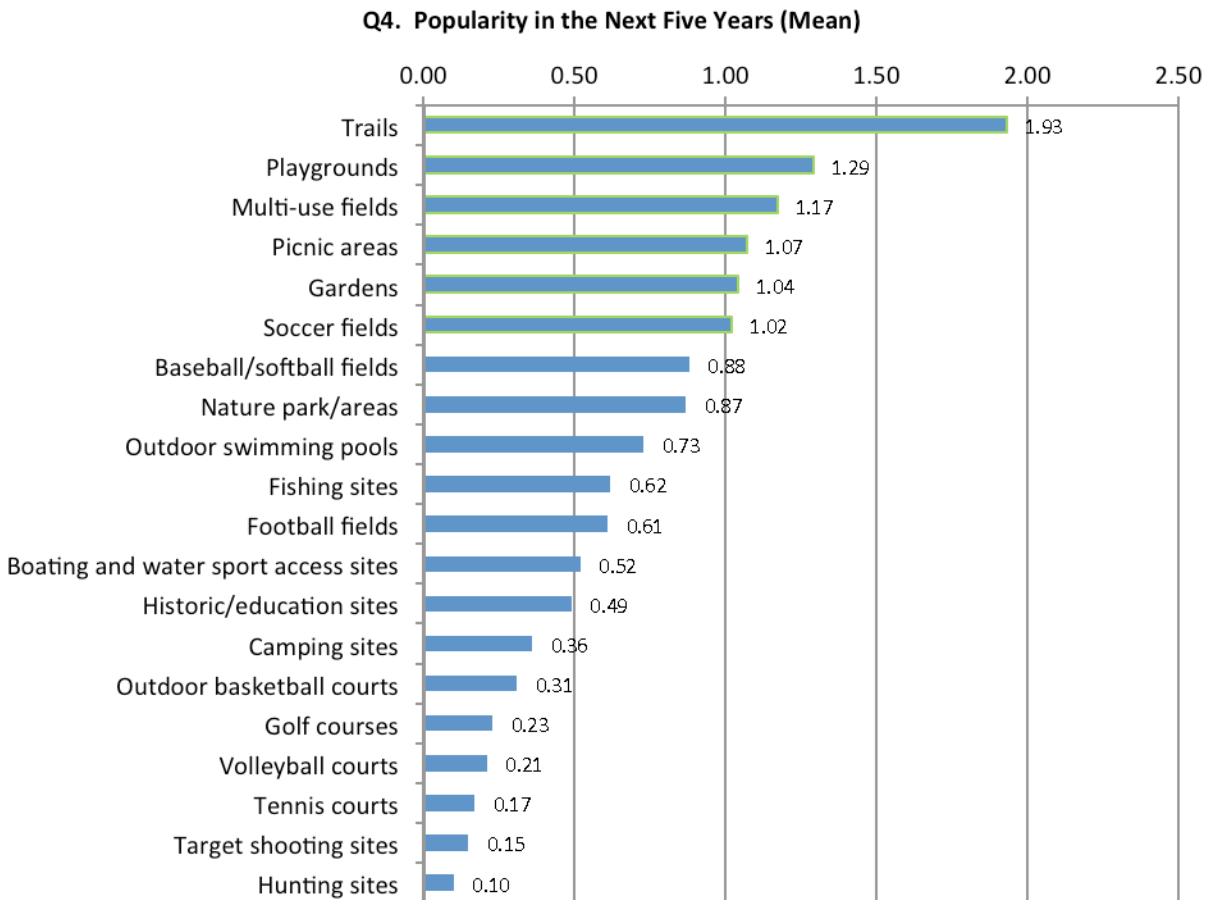
Mean scores were computed for all facility types and sorted from high to low (Table RO3.2a and Chart RO3.2a).

- **Trails** (\bar{x} =1.93), **Playgrounds** (\bar{x} =1.29), **Multi-use fields** (\bar{x} =1.17), **Picnic areas** (\bar{x} =1.07), **Gardens** (\bar{x} =1.04), and **Soccer fields** (\bar{x} =1.02) all had mean scores between **1.0** and **2.0**, indicating that popularity has increased a little or increased for those facility types over the last five years.
 - **Trails** had the lowest standard deviation at **1.102** indicating low variance among **Trail** popularity.
- All other facility types had mean scores between **0.0** and **1.0**.
 - **Target shooting sites** was the only facility type with standard deviation less than 1.0, at **0.976**, indicating low variance among **Target shooting site** popularity.

Table RO3.2a. Statistics – Q4. Popularity in the next five years

Facility Type	N	Mean	Std. Deviation	Std. Error Mean
Trails	151	1.93	1.102	0.090
Playgrounds	151	1.29	1.187	0.097
Multi-use fields	151	1.17	1.267	0.103
Picnic areas	151	1.07	1.147	0.093
Gardens	151	1.04	1.371	0.112
Soccer fields	151	1.02	1.334	0.109
Baseball/softball fields	151	0.88	1.171	0.095
Nature park/areas	151	0.87	1.229	0.100
Outdoor swimming pools	151	0.73	1.395	0.114
Fishing sites	151	0.62	1.259	0.102
Football fields	151	0.61	1.296	0.105
Boating and water sport access sites	151	0.52	1.199	0.098
Historic/education sites	151	0.49	1.113	0.091
Camping sites	151	0.36	1.175	0.096
Outdoor basketball courts	151	0.31	1.008	0.082
Golf courses	151	0.23	1.092	0.089
Volleyball courts	151	0.21	1.145	0.093
Tennis courts	151	0.17	1.264	0.103
Target shooting sites	151	0.15	0.976	0.079
Hunting sites	151	0.10	1.187	0.097

Chart RO3.2a.



Frequencies and percentages were tallied for all respondents (Table RO3.2b).

- **Trails** was the only facility type that had a higher percentage of “Increasing a Lot” responses than any other response, with **38.4%** (n=58) of respondents indicating that the popularity of **Trails** will increase a lot in the next five years.
- **Playgrounds** (37.7%, n=57), **Multi-use fields** (32.5%, n=49), **Picnic Areas** (30.5%, n=46) all had a larger percentage of “Increasing” responses than any other response, indicating that the popularity of **Playgrounds**, **Multi-use fields**, and **Picnic areas** will increase a lot over the next five years.

Table RO3.2b. Q4. Popularity in the Next Five Years – Frequencies

Facility Type	Decreasing a Lot	Decreasing	Decreasing a Little	No Change	Increasing a Little	Increasing	Increasing a Lot
Baseball/softball fields	0% (0)	2.6% (4)	4.6% (7)	35.1% (53)	27.2% (41)	20.5% (31)	9.9% (15)
Outdoor basketball courts	2% (3)	2% (3)	8.6% (13)	50.3% (76)	25.2% (38)	11.3% (17)	0.7% (1)
Boating and water sport access sites	3.3% (5)	0.7% (1)	4% (6)	51.7% (78)	20.5% (31)	13.2% (20)	6.6% (10)
Camping sites	2.6% (4)	2.6% (4)	5.3% (8)	56.3% (85)	17.2% (26)	9.9% (15)	6% (9)
Fishing sites	2% (3)	4% (6)	3.3% (5)	45% (68)	19.2% (29)	19.9% (30)	6.6% (10)
Football fields	0.7% (1)	4% (6)	7.3% (11)	48.3% (73)	11.3% (17)	18.5% (28)	9.9% (15)
Gardens	2% (3)	2% (3)	4% (6)	29.8% (45)	24.5% (37)	19.9% (30)	17.9% (27)
Golf courses	2.6% (4)	4% (6)	7.9% (12)	52.3% (79)	19.9% (30)	12.6% (19)	0.7% (1)
Historic/education sites	0.7% (1)	2.6% (4)	7.9% (12)	48.3% (73)	21.9% (33)	13.2% (20)	5.3% (8)
Hunting sites	4.6% (7)	4% (6)	5.3% (8)	64.9% (98)	9.9% (15)	6.6% (10)	4.6% (7)
Multi-use fields	1.3% (2)	2% (3)	3.3% (5)	24.5% (37)	23.2% (35)	32.5% (49)	13.2% (20)
Picnic areas	0% (0)	2% (3)	4.6% (7)	27.2% (41)	26.5% (40)	30.5% (46)	9.3% (14)
Playgrounds	0.7% (1)	2% (3)	3.3% (5)	18.5% (28)	25.2% (38)	37.7% (57)	12.6% (19)
Soccer fields	1.3% (2)	2% (3)	4.6% (7)	33.8% (51)	16.6% (25)	27.2% (41)	14.6% (22)
Outdoor swimming pools	3.3% (5)	1.3% (2)	7.3% (11)	38.4% (58)	19.2% (29)	17.9% (27)	12.6% (19)
Tennis courts	3.3% (5)	7.3% (11)	11.3% (17)	43.7% (66)	16.6% (25)	17.2% (26)	0.7% (1)
Trails	0% (0)	0% (0)	2% (3)	12.6% (19)	14.6% (22)	32.5% (49)	38.4% (58)
Volleyball courts	2.6% (4)	4.6% (7)	7.3% (11)	57% (86)	15.2% (23)	9.9% (15)	3.3% (5)
Target shooting sites	2.6% (4)	2.6% (4)	3.3% (5)	72.2% (109)	9.3% (14)	7.9% (12)	2% (3)
Nature park/areas	0.7% (1)	2% (3)	4.6% (7)	39.7% (60)	17.9% (27)	25.2% (38)	9.9% (15)

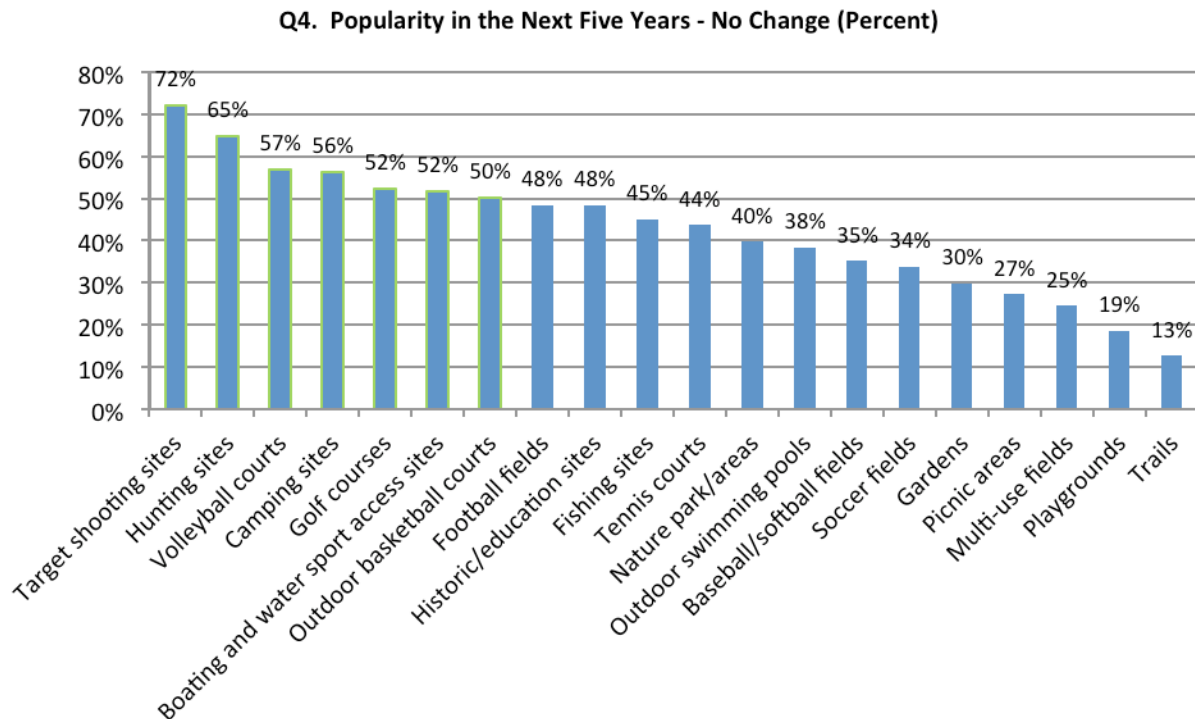
Popularity in the Next Five Years frequencies were sorted by the percentage of responses indicating “No Change” and sorted from high to low (Table RO3.2c and Chart RO3.2b).

- **Target shooting sites** (72.2%, n=109), **Hunting sites** (64.9%, n=98), **Volleyball courts** (57%, 86), **Camping sites** (56.3%, n=85), **Golf courses** (52.3%, n=79), **Boating and water access sites** (51.7%, n=78), and **Outdoor basketball courts** (50.3%, n=76) all had **50%** of more “No Change” responses, indicating that the popularity of those facilities will remain the same over the next five years.

Table RO3.2c. Q4. Popularity in the Next Five Years – Frequencies – No Change

Facility Type	Decreasing a Lot	Decreasing	Decreasing a Little	No Change	Increasing a Little	Increasing	Increasing a Lot
Target shooting sites	2.6% (4)	2.6% (4)	3.3% (5)	72.2% (109)	9.3% (14)	7.9% (12)	2% (3)
Hunting sites	4.6% (7)	4% (6)	5.3% (8)	64.9% (98)	9.9% (15)	6.6% (10)	4.6% (7)
Volleyball courts	2.6% (4)	4.6% (7)	7.3% (11)	57% (86)	15.2% (23)	9.9% (15)	3.3% (5)
Camping sites	2.6% (4)	2.6% (4)	5.3% (8)	56.3% (85)	17.2% (26)	9.9% (15)	6% (9)
Golf courses	2.6% (4)	4% (6)	7.9% (12)	52.3% (79)	19.9% (30)	12.6% (19)	0.7% (1)
Boating and water sport access sites	3.3% (5)	0.7% (1)	4% (6)	51.7% (78)	20.5% (31)	13.2% (20)	6.6% (10)
Outdoor basketball courts	2% (3)	2% (3)	8.6% (13)	50.3% (76)	25.2% (38)	11.3% (17)	0.7% (1)
Football fields	0.7% (1)	4% (6)	7.3% (11)	48.3% (73)	11.3% (17)	18.5% (28)	9.9% (15)
Historic/education sites	0.7% (1)	2.6% (4)	7.9% (12)	48.3% (73)	21.9% (33)	13.2% (20)	5.3% (8)
Fishing sites	2% (3)	4% (6)	3.3% (5)	45% (68)	19.2% (29)	19.9% (30)	6.6% (10)
Tennis courts	3.3% (5)	7.3% (11)	11.3% (17)	43.7% (66)	16.6% (25)	17.2% (26)	0.7% (1)
Nature park/areas	0.7% (1)	2% (3)	4.6% (7)	39.7% (60)	17.9% (27)	25.2% (38)	9.9% (15)
Outdoor swimming pools	3.3% (5)	1.3% (2)	7.3% (11)	38.4% (58)	19.2% (29)	17.9% (27)	12.6% (19)
Baseball/softball fields	0% (0)	2.6% (4)	4.6% (7)	35.1% (53)	27.2% (41)	20.5% (31)	9.9% (15)
Soccer fields	1.3% (2)	2% (3)	4.6% (7)	33.8% (51)	16.6% (25)	27.2% (41)	14.6% (22)
Gardens	2% (3)	2% (3)	4% (6)	29.8% (45)	24.5% (37)	19.9% (30)	17.9% (27)
Picnic areas	0% (0)	2% (3)	4.6% (7)	27.2% (41)	26.5% (40)	30.5% (46)	9.3% (14)
Multi-use fields	1.3% (2)	2% (3)	3.3% (5)	24.5% (37)	23.2% (35)	32.5% (49)	13.2% (20)
Playgrounds	0.7% (1)	2% (3)	3.3% (5)	18.5% (28)	25.2% (38)	37.7% (57)	12.6% (19)
Trails	0% (0)	0% (0)	2% (3)	12.6% (19)	14.6% (22)	32.5% (49)	38.4% (58)

Chart RO3.2b.



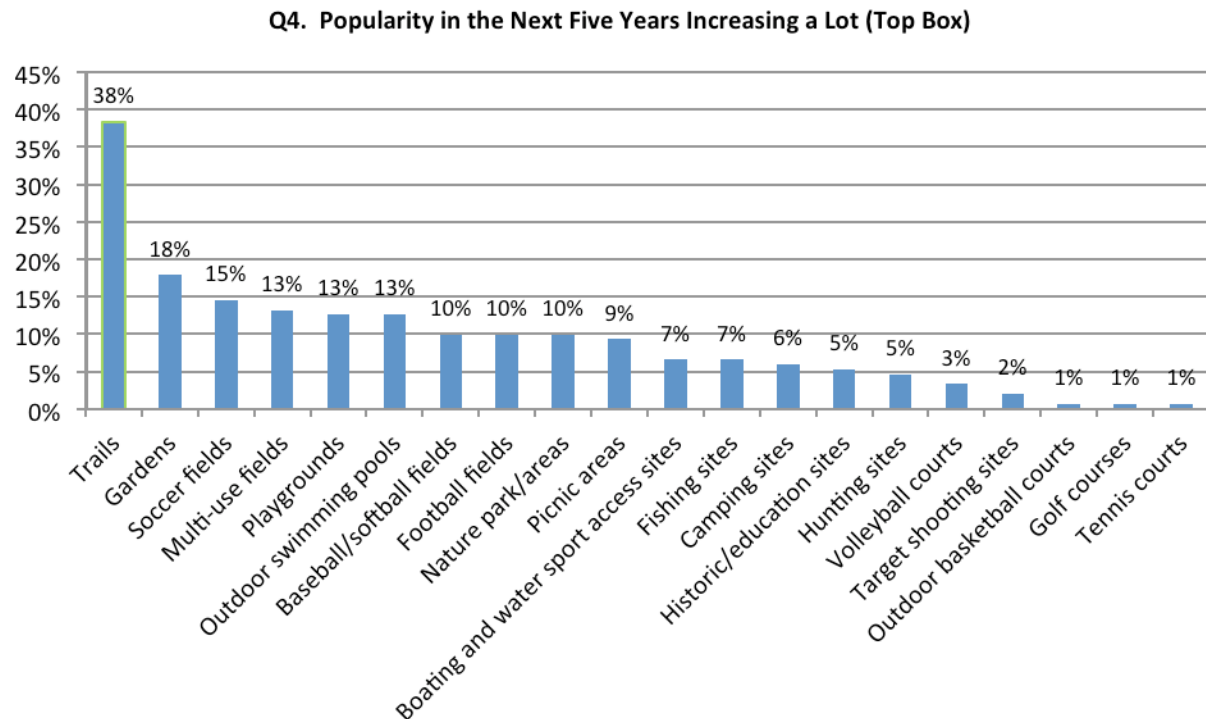
Popularity in the Next Five Years frequencies were sorted by the percentage of responses indicating “Increasing a Lot” (i.e. popularity is predicted to increase a lot over the next five years) and sorted from high to low (Table RO3.2d and Chart RO3.2c).

- **Trails** had the highest top box percentage at **38.4%** (n=58), meaning that more than 1/3rd of respondents indicated that the popularity of **Trails** will increase a lot in the in past five years. No other facility type received more than 17.9% “Much Higher” responses, a 20.5% difference, more than two times as many responses, indicating that the popularity of **Trails** is increasing more than any other type of facility.
- **Gardens** (17.9%, n=27) had a top box percentage between **15%** and **20%**, indicating that the popularity of **Gardens** will increase a lot over the next five years.
- **Soccer fields** (17.9%, n=27), **Multi-use fields** (17.9%, n=27), **Playgrounds** (17.9%, n=27), and **Outdoor swimming pools** (17.9%, n=27) all had top box percentages between **10%** and **15%**, indicating that the popularity of **Soccer fields**, **Multi-use fields**, **Playgrounds** and **Outdoor swimming pools** is increasing but not as much as **Trails** and **Gardens**.

Table RO3.2d. Q4. Popularity in the Next Five Years – Frequencies – Increasing a Lot (Top Box Percent)

Facility Type	Decreasing a Lot	Decreasing	Decreasing a Little	No Change	Increasing a Little	Increasing	Increasing a Lot
Trails	0% (0)	0% (0)	2% (3)	12.6% (19)	14.6% (22)	32.5% (49)	38.4% (58)
Gardens	2% (3)	2% (3)	4% (6)	29.8% (45)	24.5% (37)	19.9% (30)	17.9% (27)
Soccer fields	1.3% (2)	2% (3)	4.6% (7)	33.8% (51)	16.6% (25)	27.2% (41)	14.6% (22)
Multi-use fields	1.3% (2)	2% (3)	3.3% (5)	24.5% (37)	23.2% (35)	32.5% (49)	13.2% (20)
Playgrounds	0.7% (1)	2% (3)	3.3% (5)	18.5% (28)	25.2% (38)	37.7% (57)	12.6% (19)
Outdoor swimming pools	3.3% (5)	1.3% (2)	7.3% (11)	38.4% (58)	19.2% (29)	17.9% (27)	12.6% (19)
Baseball/softball fields	0% (0)	2.6% (4)	4.6% (7)	35.1% (53)	27.2% (41)	20.5% (31)	9.9% (15)
Football fields	0.7% (1)	4% (6)	7.3% (11)	48.3% (73)	11.3% (17)	18.5% (28)	9.9% (15)
Nature park/areas	0.7% (1)	2% (3)	4.6% (7)	39.7% (60)	17.9% (27)	25.2% (38)	9.9% (15)
Picnic areas	0% (0)	2% (3)	4.6% (7)	27.2% (41)	26.5% (40)	30.5% (46)	9.3% (14)
Boating and water sport access sites	3.3% (5)	0.7% (1)	4% (6)	51.7% (78)	20.5% (31)	13.2% (20)	6.6% (10)
Fishing sites	2% (3)	4% (6)	3.3% (5)	45% (68)	19.2% (29)	19.9% (30)	6.6% (10)
Camping sites	2.6% (4)	2.6% (4)	5.3% (8)	56.3% (85)	17.2% (26)	9.9% (15)	6% (9)
Historic/education sites	0.7% (1)	2.6% (4)	7.9% (12)	48.3% (73)	21.9% (33)	13.2% (20)	5.3% (8)
Hunting sites	4.6% (7)	4% (6)	5.3% (8)	64.9% (98)	9.9% (15)	6.6% (10)	4.6% (7)
Volleyball courts	2.6% (4)	4.6% (7)	7.3% (11)	57% (86)	15.2% (23)	9.9% (15)	3.3% (5)
Target shooting sites	2.6% (4)	2.6% (4)	3.3% (5)	72.2% (109)	9.3% (14)	7.9% (12)	2% (3)
Outdoor basketball courts	2% (3)	2% (3)	8.6% (13)	50.3% (76)	25.2% (38)	11.3% (17)	0.7% (1)
Golf courses	2.6% (4)	4% (6)	7.9% (12)	52.3% (79)	19.9% (30)	12.6% (19)	0.7% (1)
Tennis courts	3.3% (5)	7.3% (11)	11.3% (17)	43.7% (66)	16.6% (25)	17.2% (26)	0.7% (1)

Chart RO3.2c.



Cross-tabs – Urban or Rural/Popularity in Next Five Years

Respondents were classified as either **urban or rural** (based on zip code), cross tabulated by **popularity in the next five years**, and urban and rural means scores were tested for significant differences using an independent samples t-test (95% and 90%) with H_0 = null/no difference in popularity in the next five years between urban and rural areas and H_1 = difference in popularity in the next five years between urban and rural areas (Table RO3.2e and Table RO3.2f).

- **Baseball/softball fields** ($p=.032$) and **Picnic areas** ($p=.032$) were the only facility types to show significant differences between urban and rural at the 95% level ($p < 0.05$ = H_0 rejected and H_1 accepted).
 - **Urban** respondents ($\bar{x}=0.95$, $n=136$) scored higher than **Rural** respondents ($\bar{x}=0.27$, $n=15$) for **Baseball/softball fields**, indicating that the local demand for **Baseball/softball fields** is significantly higher in urban areas than rural areas.
 - **Urban** respondents ($\bar{x}=1.13$, $n=136$) scored higher than **Rural** respondents ($\bar{x}=0.47$, $n=15$) for **Picnic areas**, indicating that the local demand for **Picnic areas** is significantly higher in urban areas than rural areas.
- **Trails** ($p=0.088$) was the only other facility type to show significant differences between urban and rural at the 90% level ($p < 0.10$ = H_0 rejected and H_1 accepted).
 - **Urban** respondents ($\bar{x}=1.98$, $n=136$) scored higher than **Rural** respondents ($\bar{x}=1.47$, $n=15$), indicating that the local demand for **Trails** is significantly higher in urban areas than rural areas.

Cross-tabs – Area Code/Popularity in Next Five Years

Respondents were classified by **area code**, cross tabulated by **popularity in the next five years**, sorted high to low by overall mean (Table 4a), and mean scores were tested against each other for significance (95%) using an independent sample t-test, with H_0 = null/no difference in popularity over the next five years and H_1 = different levels of popularity in the next five years (Table RO3.2g).

- **Southwest (417)** (n=18) area code had nine statistically significant differences, as compared to other regions, among six facility types ($p < 0.05$ = H_0 rejected and H_1 accepted).
 - **Gardens** (\bar{x} =1.0, n=151) scored significantly higher in **Southwest (417)** (\bar{x} =1.9, n=18) compared to **Northeast-Central-Southeast (573)** (\bar{x} =0.6, n=33) and **Kansas City-West (816)** (\bar{x} =0.6, n=41).
 - **Baseball/softball fields** (\bar{x} =0.9, n=151) scored significantly higher in **Southwest (417)** (\bar{x} =1.4, n=8) compared to **St. Louis-East (314)** (\bar{x} =0.5, n=34) and **East-Central (636)** (\bar{x} =0.6, n=17).
 - **Nature parks/areas** (\bar{x} =0.9, n=151) scored significantly higher in **Southwest (417)** (\bar{x} =1.4, n=8) compared to **Northwest (660)** (\bar{x} =0.2, n=8) and **Kansas City-West (816)** (\bar{x} =0.6, n=41).
 - **Camping sites** (\bar{x} =0.4, n=151) scored significantly higher in **Southwest (417)** (\bar{x} =0.7, n=8) compared to **Northeast-Central-Southeast (573)** (\bar{x} =0.0, n=33).
 - **Target shooting sites** (\bar{x} =0.1, n=151) scored significantly higher in **Southwest (417)** (\bar{x} =0.4, n=8) compared to **St. Louis-East (314)** (\bar{x} =-0.1, n=34).
 - **Hunting sites** (\bar{x} =0.1, n=151) scored significantly higher in **Southwest (417)** (\bar{x} =1.4, n=8) compared to **St. Louis-East (314)** (\bar{x} =-0.1, n=34).
- **East-Central (636)** (n=17) area code had the second most statistically significant differences, as compared to other regions, with six differences among three facility types ($p < 0.05$ = H_0 rejected and H_1 accepted).
 - **Multi-use fields** (\bar{x} =1.2, n=151) scored significantly higher in **East-Central (636)** (\bar{x} =1.6, n=17) compared to **St. Louis-East (314)** (\bar{x} =0.9, n=34).
 - **Historic/education sites** (\bar{x} =0.5, n=151) scored significantly higher in **East-Central (636)** (\bar{x} =1.1, n=17) compared to **Northeast-Central-Southeast (573)** (\bar{x} =0.3, n=33), and **Northwest (660)** (\bar{x} =-0.1, n=8).
 - **Camping sites** (\bar{x} =0.4, n=151) scored significantly higher in **East-Central (636)** (\bar{x} =1.1, n=17) compared to **St. Louis-East (314)** (\bar{x} =0.2, n=34), **Northeast-Central-Southeast (573)** (\bar{x} =0.0, n=33), and **Kansas City-West** (\bar{x} =0.2, n=41).
- **St. Louis-East (314)** (n=34) had three statistically significant differences, as compared to other regions, among two facility types ($p < 0.05$ = H_0 rejected and H_1 accepted).
 - **Gardens** (\bar{x} =1.0, n=151) scored significantly higher in **St. Louis-East (314)** (\bar{x} =1.4, n=34) compared to **Northeast-Central-Southeast (573)** (\bar{x} =0.6, n=33) and **Kansas City-West (816)** (\bar{x} =0.6, n=41).
 - **Nature parks/areas** (\bar{x} =0.9, n=151) scored significantly higher in **St. Louis-East (314)** (\bar{x} =1.2, n=34) compared to **Kansas City-West (816)** (\bar{x} =0.6, n=41).
- **Northeast-Central-Southeast (573)** (n=33) had three statistically significant differences, as compared to other regions, among two facility types ($p < 0.05$ = H_0 rejected and H_1 accepted).
 - **Football fields** (\bar{x} =0.9, n=151) scored significantly higher in **Northeast-Central-Southeast (573)** (\bar{x} =1.1, n=33) compared to **St. Louis-East (314)** (\bar{x} =0.1, n=34) and **Southwest (417)** (\bar{x} =0.3, n=18).

- **Target shooting sites** ($\bar{x} = 0.1$, $n=151$) scored significantly higher in **Northeast-Central-Southeast (573)** ($\bar{x} = 0.4$, $n=33$) compared to **St. Louis-East (314)** ($\bar{x} = -0.1$, $n=34$).
- **Northwest (660)** ($n=8$) had three statistically significant differences, as compared to other regions, among two facility types ($p < 0.05 = H_0$ rejected and H_1 accepted).
 - **Gardens** ($\bar{x} = 1.0$, $n=151$) scored significantly higher in **Northwest (660)** ($\bar{x} = 1.6$, $n=8$) compared to **Kansas City-West (816)** ($\bar{x} = 0.6$, $n=41$).
 - **Camping sites** ($\bar{x} = 0.4$, $n=151$) scored significantly higher in **Northwest (660)** ($\bar{x} = 1.0$, $n=8$) compared to **St. Louis-East (314)** ($\bar{x} = 0.2$, $n=34$), **Northeast-Central-Southeast (573)** ($\bar{x} = 0.0$, $n=33$), and **Kansas City-West** ($\bar{x} = 0.2$, $n=41$).
- **Kansas City-West (816)** ($n=41$) had two statistically significant differences, as compared to other regions, among two facility types ($p < 0.05 = H_0$ rejected and H_1 accepted).
 - **Baseball/softball fields** ($\bar{x} = 0.9$, $n=151$) scored significantly higher in **Kansas City-West (816)** ($\bar{x} = 1.1$, $n=41$) compared to **St. Louis-East (314)** ($\bar{x} = 0.5$, $n=34$).
 - **Football fields** ($\bar{x} = 0.9$, $n=151$) scored significantly higher in **Kansas City-West (816)** ($\bar{x} = 0.8$, $n=41$) compared to **St. Louis-East (314)** ($\bar{x} = 0.1$, $n=34$).

Research Objective 3.3 (RO3.3)

- **Determine which outdoor recreation activities in Missouri are popular among different age ranges.**

Respondents were asked what the two most popular outdoor recreation activities they provide for different age ranges. For each age range, the results were code, tallied, and sorted from high to low by frequency (Table RO3.3a – Table RO3.3f and Chart RO3.3a – Chart RO3.3f).

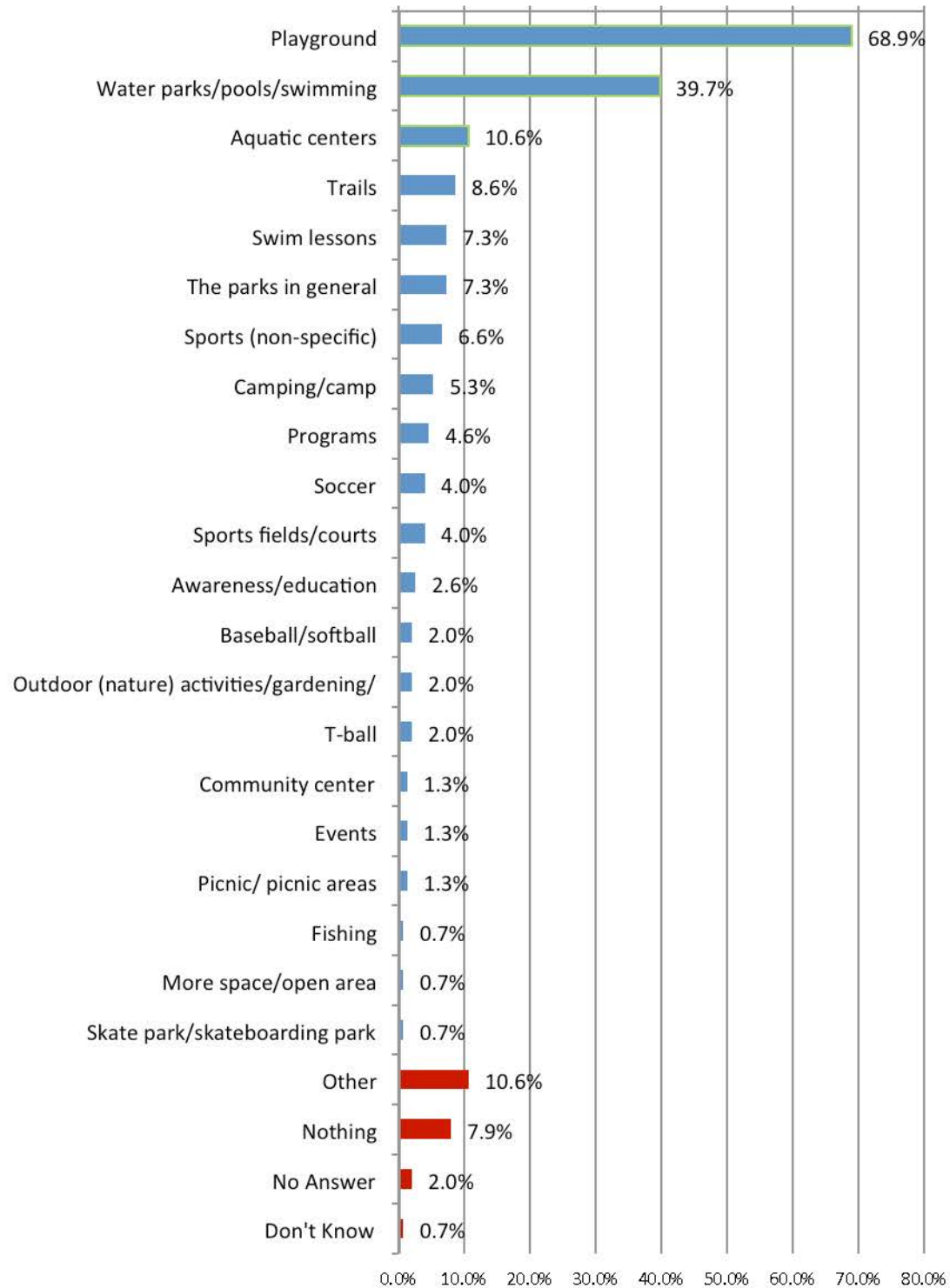
- **Pre-school (0 to 5 years old)**
 - **Playground** (68.9%, n=104) was mentioned by more than **65%** of respondents.
 - **Water parks/pools/swimming** (39.7%, n=60) was mentioned by more than **39.7%** of respondents.
 - **Aquatic centers** (10.6%, n=16) was mentioned by more than **10%** of respondents.

Table RO3.3a. Q16_1 Frequencies – Pre-school (0 to 5 years old)

Code	Response	Responses		Percent of Cases
		N	Percent	
24	Playground	104	34.00%	68.90%
20	Water parks/pools/swimming	60	19.60%	39.70%
57	Aquatic centers	16	5.20%	10.60%
28	Trails	13	4.20%	8.60%
62	Swim lessons	11	3.60%	7.30%
19	The parks in general	11	3.60%	7.30%
59	Sports (non-specific)	10	3.30%	6.60%
41	Camping/camp	8	2.60%	5.30%
65	Programs	7	2.30%	4.60%
32	Soccer	6	2.00%	4.00%
21	Sports fields/courts	6	2.00%	4.00%
35	Awareness/education	4	1.30%	2.60%
29	Baseball/softball	3	1.00%	2.00%
43	Outdoor (nature) activities/gardening/botanical	3	1.00%	2.00%
68	T-ball	3	1.00%	2.00%
16	Community center	2	0.70%	1.30%
47	Events	2	0.70%	1.30%
58	Picnic/ picnic areas	2	0.70%	1.30%
101	Fishing	1	0.30%	0.70%
23	More space/open area	1	0.30%	0.70%
10	Skate park/skateboarding park	1	0.30%	0.70%
99	Other	16	5.20%	10.60%
96	Nothing	12	3.90%	7.90%
97	No Answer	3	1.00%	2.00%
98	Don't Know	1	0.30%	0.70%
	Total	306	100.00%	202.60%

Chart RO3.3a

**Q16. What two most popular outdoor recreation activities do you provide for
Pre-school (0 to 5 years old)**



Children (6 to 12 years old)

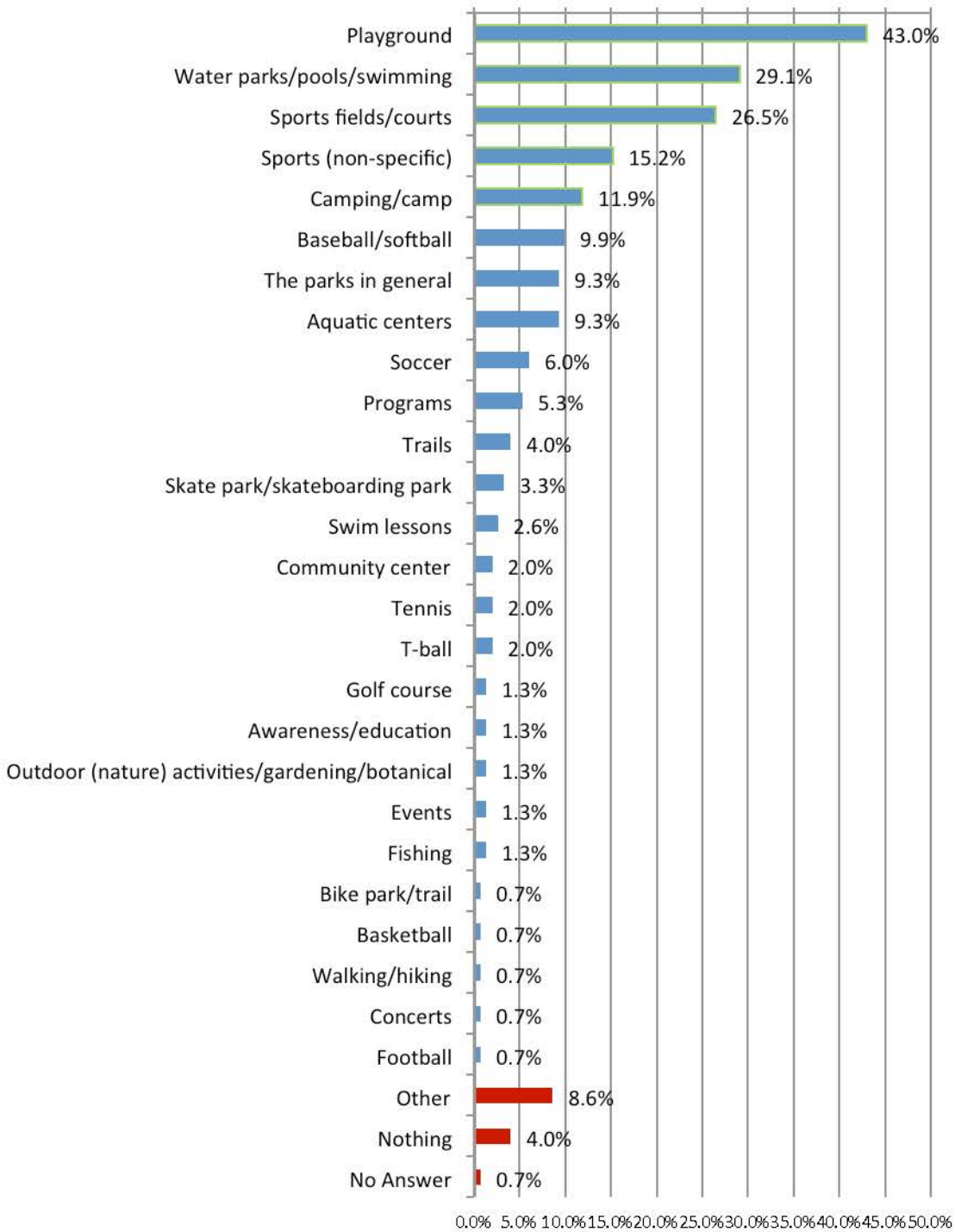
- **Playground** (43.0%, n=65) was mentioned by more than **40%** of respondents.
- **Water parks/pools/swimming** (29.1%, n=44) and **Sports fields/courts** (26.5%, n=40) were both mentioned by more than **25%** of respondents.
- **Sports (non-specific)** (15.2%, n=23) was mentioned by more than **15%** of respondents.
- **Camping/camp** (11.9%, n=18) was mentioned by more than **10%** of respondents.

Table RO3.3b. Q16_2 Frequencies – Children (6 to 12 years old)

Code	Response	Responses		Percent of Cases
		N	Percent	
24	Playground	65	21.00%	43.00%
20	Water parks/pools/swimming	44	14.20%	29.10%
21	Sports fields/courts	40	12.90%	26.50%
59	Sports (non-specific)	23	7.40%	15.20%
41	Camping/camp	18	5.80%	11.90%
29	Baseball/softball	15	4.90%	9.90%
19	The parks in general	14	4.50%	9.30%
57	Aquatic centers	14	4.50%	9.30%
32	Soccer	9	2.90%	6.00%
65	Programs	8	2.60%	5.30%
28	Trails	6	1.90%	4.00%
10	Skate park/skateboarding park	5	1.60%	3.30%
62	Swim lessons	4	1.30%	2.60%
16	Community center	3	1.00%	2.00%
31	Tennis	3	1.00%	2.00%
68	T-ball	3	1.00%	2.00%
15	Golf course	2	0.60%	1.30%
35	Awareness/education	2	0.60%	1.30%
43	Outdoor (nature) activities/gardening/botanical	2	0.60%	1.30%
47	Events	2	0.60%	1.30%
101	Fishing	2	0.60%	1.30%
12	Bike park/trail	1	0.30%	0.70%
33	Basketball	1	0.30%	0.70%
63	Walking/hiking	1	0.30%	0.70%
66	Concerts	1	0.30%	0.70%
69	Football	1	0.30%	0.70%
99	Other	13	4.20%	8.60%
96	Nothing	6	1.90%	4.00%
97	No Answer	1	0.30%	0.70%
	Total	309	100.00%	204.60%

Chart RO3.3b.

Q16. What two most popular outdoor recreation activities do you provide for Children (6 to 12 years old)



Adolescents (13 to 18 years old)

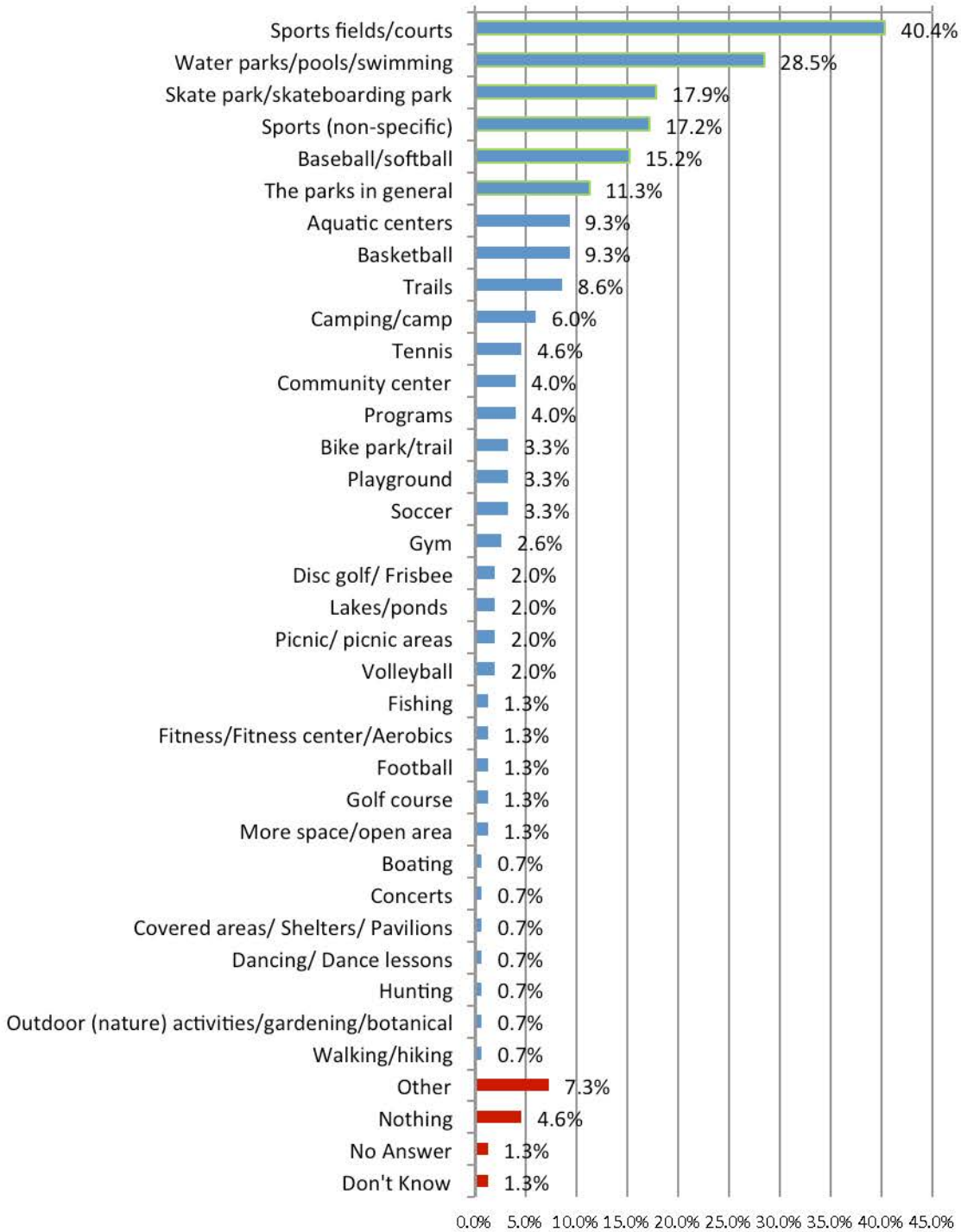
- **Sports fields/courts** (40.4%, n=61) was mentioned by more than **40%** of respondents.
- **Water parks/pools/swimming** (28.5%, n=43) was mentioned by more than **25%** of respondents.
- **Skate park/skateboarding park** (17.9%, n=27), **Sports (non-specific)** (17.2%, n=26), and **Baseball/softball** (15.2%, n=23) were all mentioned by more than **10%** of respondents.

Table RO3.3c. Q16_3 Frequencies – Adolescents (13 to 18 years old)

Code	Response	Responses		Percent of Cases
		N	Percent	
21	Sports fields/courts	61	18.20%	40.40%
20	Water parks/pools/swimming	43	12.80%	28.50%
10	Skate park/skateboarding park	27	8.00%	17.90%
59	Sports (non-specific)	26	7.70%	17.20%
29	Baseball/softball	23	6.80%	15.20%
19	The parks in general	17	5.10%	11.30%
57	Aquatic centers	14	4.20%	9.30%
33	Basketball	14	4.20%	9.30%
28	Trails	13	3.90%	8.60%
41	Camping/camp	9	2.70%	6.00%
31	Tennis	7	2.10%	4.60%
16	Community center	6	1.80%	4.00%
65	Programs	6	1.80%	4.00%
12	Bike park/trail	5	1.50%	3.30%
24	Playground	5	1.50%	3.30%
32	Soccer	5	1.50%	3.30%
70	Gym	4	1.20%	2.60%
14	Disc golf/ Frisbee	3	0.90%	2.00%
18	Lakes/ponds	3	0.90%	2.00%
58	Picnic/ picnic areas	3	0.90%	2.00%
30	Volleyball	3	0.90%	2.00%
101	Fishing	2	0.60%	1.30%
64	Fitness/Fitness center/Aerobics	2	0.60%	1.30%
69	Football	2	0.60%	1.30%
15	Golf course	2	0.60%	1.30%
23	More space/open area	2	0.60%	1.30%
60	Boating	1	0.30%	0.70%
66	Concerts	1	0.30%	0.70%
25	Covered areas/ Shelters/ Pavilions	1	0.30%	0.70%
67	Dancing/ Dance lessons	1	0.30%	0.70%
102	Hunting	1	0.30%	0.70%
43	Outdoor (nature) activities/gardening/botanical	1	0.30%	0.70%
63	Walking/hiking	1	0.30%	0.70%
99	Other	11	3.30%	7.30%
96	Nothing	7	2.10%	4.60%
97	No Answer	2	0.60%	1.30%
98	Don't Know	2	0.60%	1.30%
	Total	336	100.00%	222.50%

Chart RO3.3c.

Q16. What two most popular outdoor recreation activities do you provide for Adolescents (13 to 18 years old)



Young adults (19 to 34 years old)

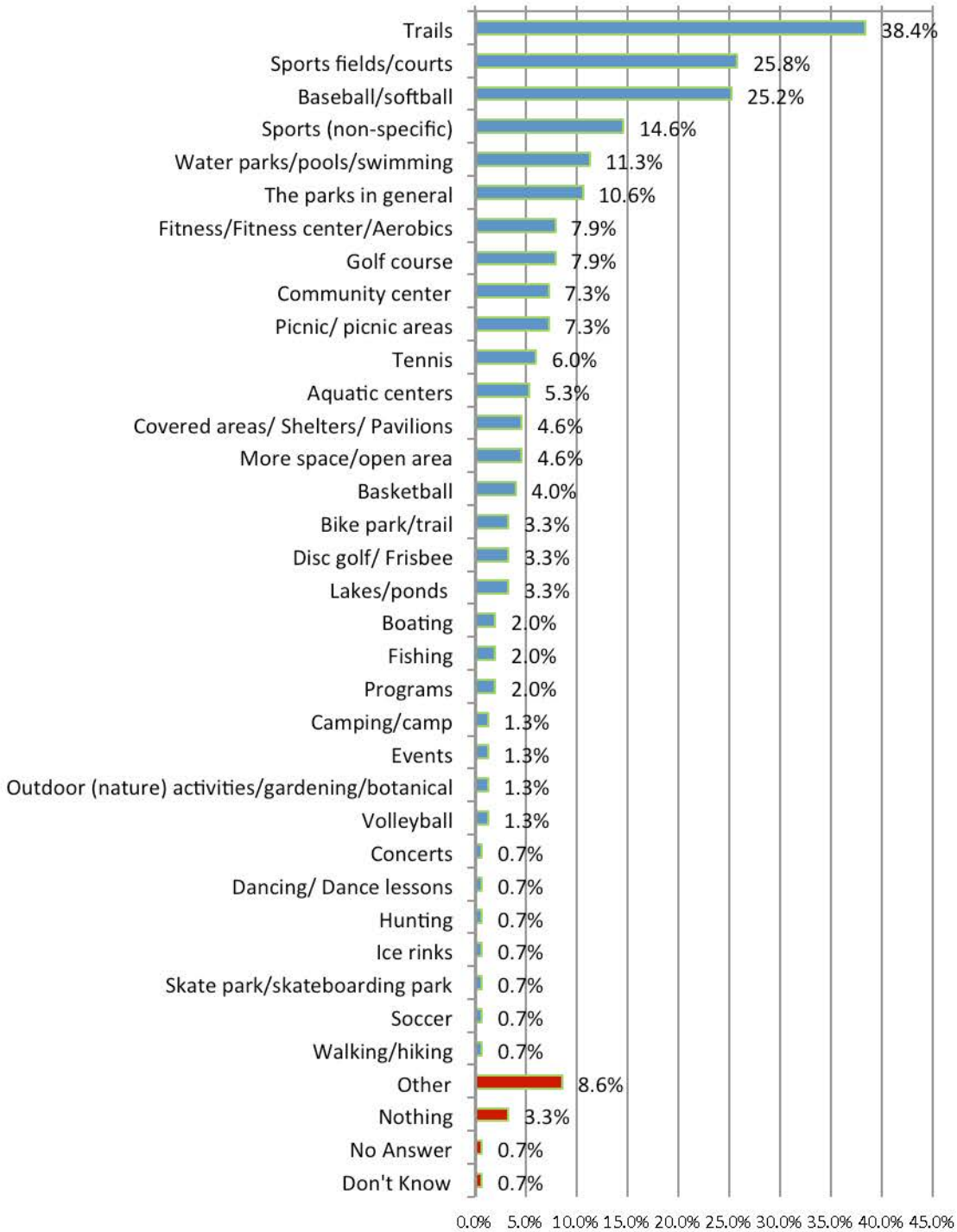
- **Trails** (38.4%, n=58) was mentioned by more than **35%** of respondents.
- **Sports fields/courts** (25.8%, n=39) and **Baseball/softball** (25.2.0%, n=38) were both mentioned by more than **25%** of respondents.
- **Sports (non-specific)** (25.8%, n=39), **Water parks/pools/swimming** (25.8%, n=39), and **The parks in general** (25.8%, n=39) were all mentioned by more than **10%** of respondents.

Table RO3.3d. Q16_4 Frequencies – Young adults (19 to 34)

Code	Response	Responses		Percent of Cases
		N	Percent	
28	Trails	58	17.50%	38.40%
21	Sports fields/courts	39	11.70%	25.80%
29	Baseball/softball	38	11.40%	25.20%
59	Sports (non-specific)	22	6.60%	14.60%
20	Water parks/pools/swimming	17	5.10%	11.30%
19	The parks in general	16	4.80%	10.60%
64	Fitness/Fitness center/Aerobics	12	3.60%	7.90%
15	Golf course	12	3.60%	7.90%
16	Community center	11	3.30%	7.30%
58	Picnic/ picnic areas	11	3.30%	7.30%
31	Tennis	9	2.70%	6.00%
57	Aquatic centers	8	2.40%	5.30%
25	Covered areas/ Shelters/ Pavilions	7	2.10%	4.60%
23	More space/open area	7	2.10%	4.60%
33	Basketball	6	1.80%	4.00%
12	Bike park/trail	5	1.50%	3.30%
14	Disc golf/ Frisbee	5	1.50%	3.30%
18	Lakes/ponds	5	1.50%	3.30%
60	Boating	3	0.90%	2.00%
101	Fishing	3	0.90%	2.00%
65	Programs	3	0.90%	2.00%
41	Camping/camp	2	0.60%	1.30%
47	Events	2	0.60%	1.30%
43	Outdoor (nature) activities/gardening/botanical	2	0.60%	1.30%
30	Volleyball	2	0.60%	1.30%
66	Concerts	1	0.30%	0.70%
67	Dancing/ Dance lessons	1	0.30%	0.70%
102	Hunting	1	0.30%	0.70%
26	Ice rinks	1	0.30%	0.70%
10	Skate park/skateboarding park	1	0.30%	0.70%
32	Soccer	1	0.30%	0.70%
63	Walking/hiking	1	0.30%	0.70%
99	Other	13	3.90%	8.60%
96	Nothing	5	1.50%	3.30%
97	No Answer	1	0.30%	0.70%
98	Don't Know	1	0.30%	0.70%
	Total	332	100.00%	219.90%

Chart RO3.3d.

**Q16. What two most popular outdoor recreation activities do you provide for
Young adults (19 to 34)**



Adults (35 to 54 years old)

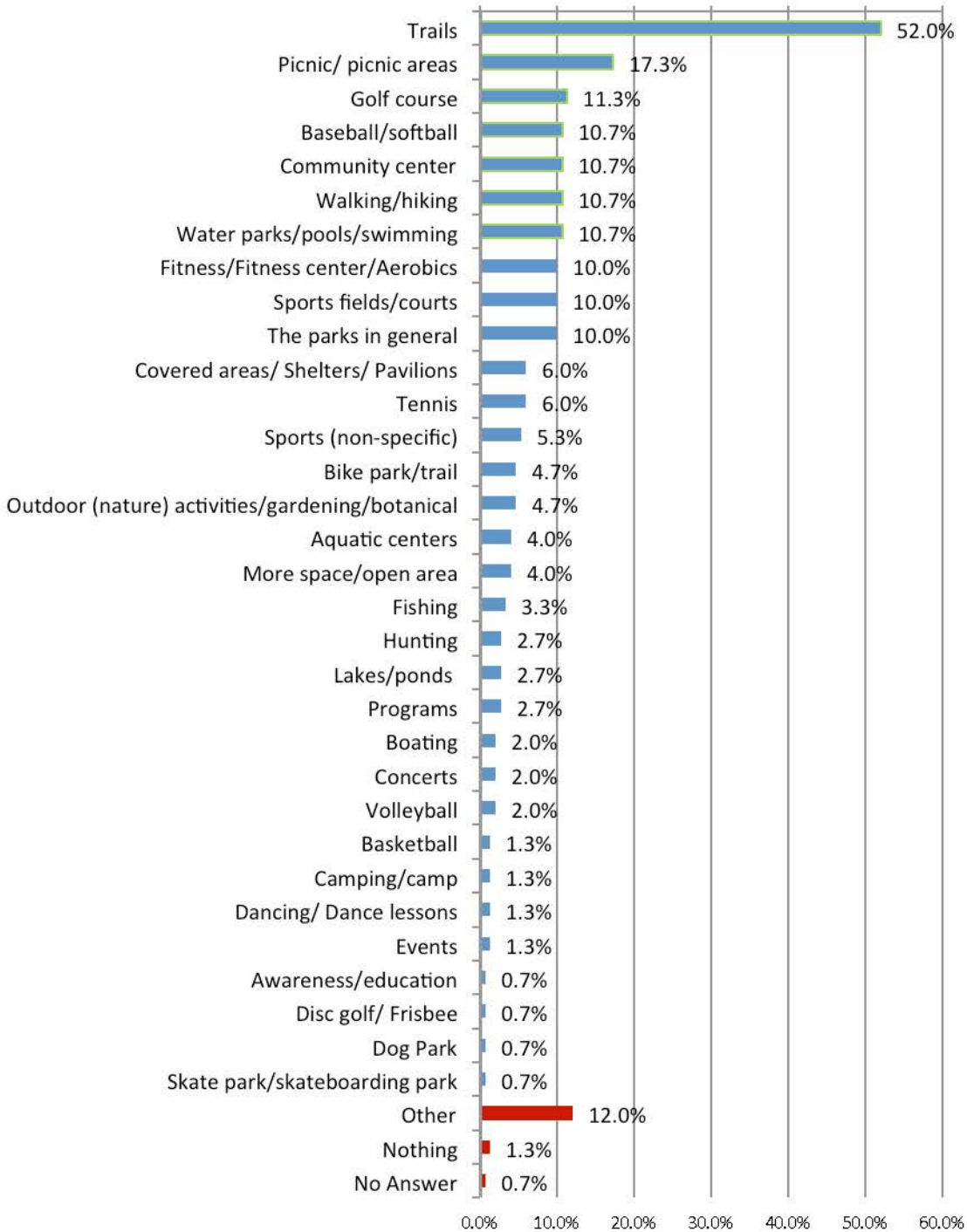
- **Trails** (52.0%, n=78) was mentioned by more than 50% of respondents.
- **Picnic/picnic areas** (17.3%, n=26), **Golf course** (11.3%, n=17), **Baseball/softball, Community center, Walking/hiking** and **Water parks/pools/swimming** (10.7%, n=16) were all mentioned by more than **10%** of respondents.

Table RO3.3e. Q16_5 Frequencies – Adults (35 to 54 years old)

Code	Response	Responses		Percent of Cases
		N	Percent	
28	Trails	78	22.90%	52.00%
58	Picnic/ picnic areas	26	7.60%	17.30%
15	Golf course	17	5.00%	11.30%
29	Baseball/softball	16	4.70%	10.70%
16	Community center	16	4.70%	10.70%
63	Walking/hiking	16	4.70%	10.70%
20	Water parks/pools/swimming	16	4.70%	10.70%
64	Fitness/Fitness center/Aerobics	15	4.40%	10.00%
21	Sports fields/courts	15	4.40%	10.00%
19	The parks in general	15	4.40%	10.00%
25	Covered areas/ Shelters/ Pavilions	9	2.60%	6.00%
31	Tennis	9	2.60%	6.00%
59	Sports (non-specific)	8	2.30%	5.30%
12	Bike park/trail	7	2.10%	4.70%
43	Outdoor (nature) activities/gardening/botanical	7	2.10%	4.70%
57	Aquatic centers	6	1.80%	4.00%
23	More space/open area	6	1.80%	4.00%
101	Fishing	5	1.50%	3.30%
102	Hunting	4	1.20%	2.70%
18	Lakes/ponds	4	1.20%	2.70%
65	Programs	4	1.20%	2.70%
60	Boating	3	0.90%	2.00%
66	Concerts	3	0.90%	2.00%
30	Volleyball	3	0.90%	2.00%
33	Basketball	2	0.60%	1.30%
41	Camping/camp	2	0.60%	1.30%
67	Dancing/ Dance lessons	2	0.60%	1.30%
47	Events	2	0.60%	1.30%
35	Awareness/education	1	0.30%	0.70%
14	Disc golf/ Frisbee	1	0.30%	0.70%
11	Dog Park	1	0.30%	0.70%
10	Skate park/skateboarding park	1	0.30%	0.70%
99	Other	18	5.30%	12.00%
96	Nothing	2	0.60%	1.30%
97	No Answer	1	0.30%	0.70%
	Total	341	100.00%	227.30%

Chart R03.3e.

**Q16. What two most popular outdoor recreation activities do you provide for
Adults (35 to 54 years old)**



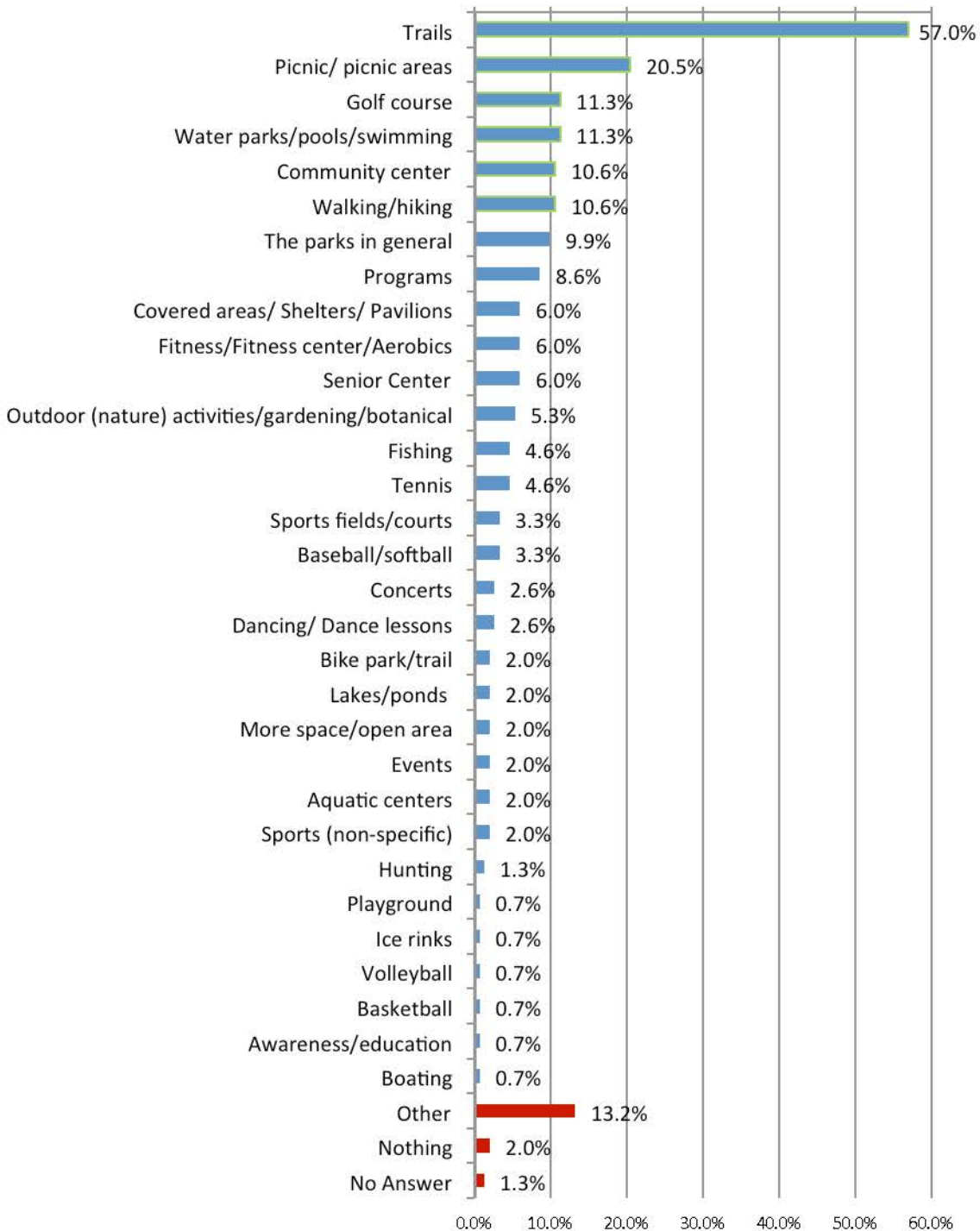
- **Seniors (55 years and older)**
 - **Trails** (57.0%, n=86) was mentioned by more than **55%** of respondents.
 - **Picnic/picnic areas** (20.5%, n=31) was mentioned by more than **20%** of respondents.
 - **Golf course** and **Water parks/pools/swimming** (11.3%, n=17), **Community center** and **Walking/hiking** (10.6%, n=16) were all mentioned by more than **10%** of respondents.

Table RO3.3f. Q16_6 Frequencies – Seniors (55 years and older)

Code	Response	Responses		Percent of Cases
		N	Percent	
28	Trails	86	26.10%	57.00%
58	Picnic/ picnic areas	31	9.40%	20.50%
15	Golf course	17	5.20%	11.30%
20	Water parks/pools/swimming	17	5.20%	11.30%
16	Community center	16	4.90%	10.60%
63	Walking/hiking	16	4.90%	10.60%
19	The parks in general	15	4.60%	9.90%
65	Programs	13	4.00%	8.60%
25	Covered areas/ Shelters/ Pavilions	9	2.70%	6.00%
64	Fitness/Fitness center/Aerobics	9	2.70%	6.00%
71	Senior Center	9	2.70%	6.00%
43	Outdoor (nature) activities/gardening/botanical	8	2.40%	5.30%
101	Fishing	7	2.10%	4.60%
31	Tennis	7	2.10%	4.60%
21	Sports fields/courts	5	1.50%	3.30%
29	Baseball/softball	5	1.50%	3.30%
66	Concerts	4	1.20%	2.60%
67	Dancing/ Dance lessons	4	1.20%	2.60%
12	Bike park/trail	3	0.90%	2.00%
18	Lakes/ponds	3	0.90%	2.00%
23	More space/open area	3	0.90%	2.00%
47	Events	3	0.90%	2.00%
57	Aquatic centers	3	0.90%	2.00%
59	Sports (non-specific)	3	0.90%	2.00%
102	Hunting	2	0.60%	1.30%
24	Playground	1	0.30%	0.70%
26	Ice rinks	1	0.30%	0.70%
30	Volleyball	1	0.30%	0.70%
33	Basketball	1	0.30%	0.70%
35	Awareness/education	1	0.30%	0.70%
60	Boating	1	0.30%	0.70%
99	Other	20	6.10%	13.20%
96	Nothing	3	0.90%	2.00%
97	No Answer	2	0.60%	1.30%
	Total	329	100.00%	217.90%

Chart RO3.3f.

Q16. What two most popular outdoor recreation activities do you provide for Seniors (55 years and older)



Research Objective 3.4 (RO3.4)

- **Determine which outdoor recreation activities in Missouri are popular among families.**

Respondents were asked, “What are the two most popular activities that you supply for families in your community?” All responses were coded, tallied, and sorted from high to low by frequency (Table RO3.4a and Chart RO3.4a).

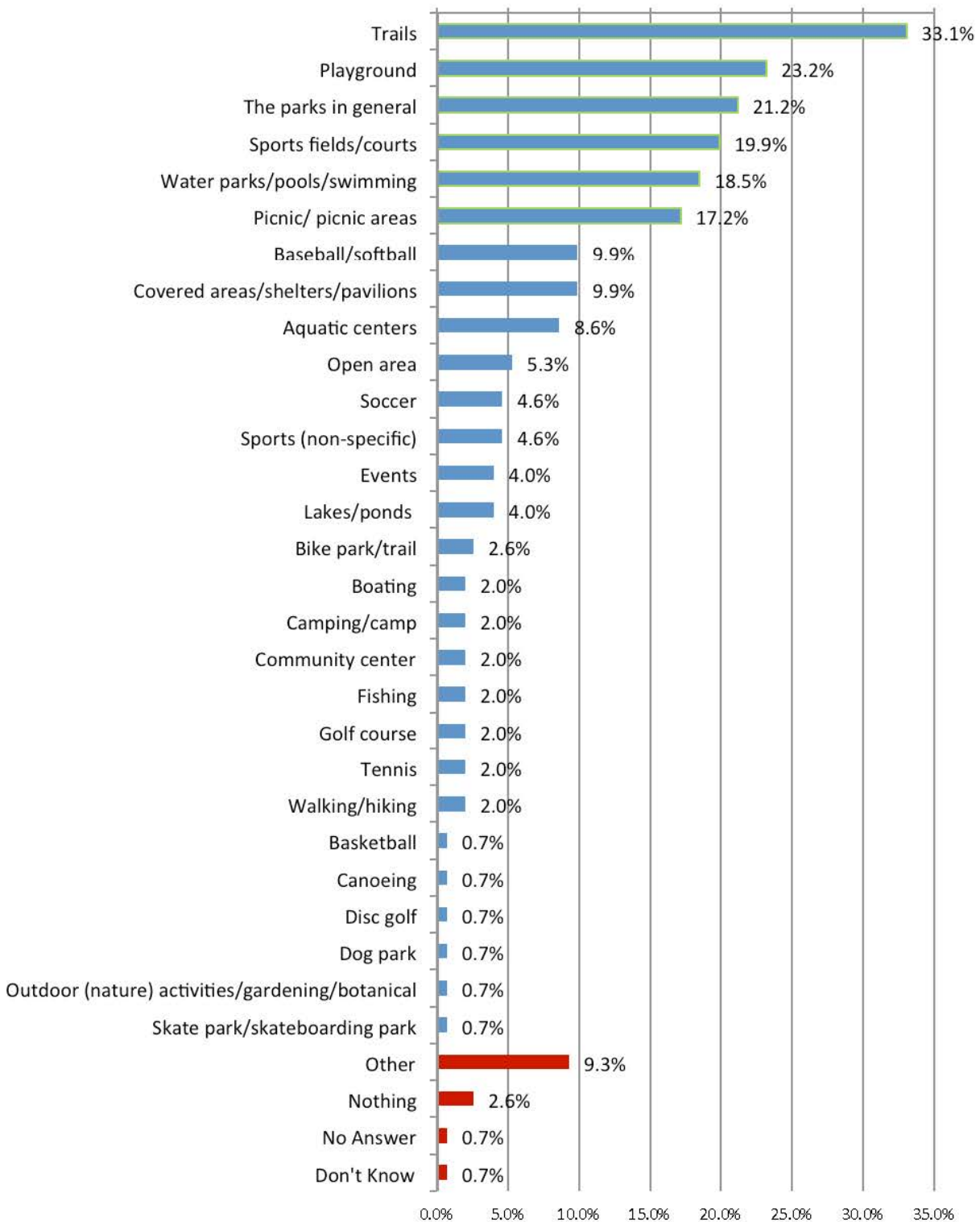
- **Trails** (33.1%, n=50) was mentioned by more than **33%** of respondents.
- **Playground** (23.2%, n=35) and **The parks in general** (21.2%, n=32) were mentioned by more than **20%** of respondents.
- **Sports fields/courts** (19.9%, n=30), **Water parks/pools/swimming** (23.2%, n=35), and **Picnic/Picnic areas** (17.2%, n=26) were all mentioned by more than **15%** of respondents.

Table RO3.4a. Q15 Frequencies – What are the two most popular activities that you supply for families in your community? – Total Responses

Code	Response	Responses		Percent of Cases
		N	Percent	
28	Trails	50	15.20%	33.10%
24	Playground	35	10.60%	23.20%
19	The parks in general	32	9.70%	21.20%
21	Sports fields/courts	30	9.10%	19.90%
20	Water parks/pools/swimming	28	8.50%	18.50%
58	Picnic/ picnic areas	26	7.90%	17.20%
29	Baseball/softball	15	4.60%	9.90%
25	Covered areas/shelters/pavilions	15	4.60%	9.90%
57	Aquatic centers	13	4.00%	8.60%
23	Open area	8	2.40%	5.30%
32	Soccer	7	2.10%	4.60%
59	Sports (non-specific)	7	2.10%	4.60%
47	Events	6	1.80%	4.00%
18	Lakes/ponds	6	1.80%	4.00%
12	Bike park/trail	4	1.20%	2.60%
60	Boating	3	0.90%	2.00%
41	Camping/camp	3	0.90%	2.00%
16	Community center	3	0.90%	2.00%
101	Fishing	3	0.90%	2.00%
15	Golf course	3	0.90%	2.00%
31	Tennis	3	0.90%	2.00%
63	Walking/hiking	3	0.90%	2.00%
10	Basketball	1	0.30%	0.70%
11	Canoeing	1	0.30%	0.70%
14	Disc golf	1	0.30%	0.70%
33	Dog park	1	0.30%	0.70%
43	Outdoor (nature) activities/gardening/botanical	1	0.30%	0.70%
61	Skate park/skateboarding park	1	0.30%	0.70%
99	Other	14	4.30%	9.30%
96	Nothing	4	1.20%	2.60%
97	No Answer	1	0.30%	0.70%
98	Don't Know	1	0.30%	0.70%
	Total	329	100.00%	217.90%

Chart RO3.4a.

Q15. What are the two most popular activities that you supply for families in your community?



Research Objective 3.5 (RO3.5)

- **Determine the outdoor recreation activities in Missouri are both popular and in need of improvement.**

Mean scores and top box percentages were compiled for all facility types for questions one through four (i.e. Q1. Need of Improvement, Q2. Local Demand, Q3. Popularity over the Last Five Years, and Q4. Popularity in the Next Five Years) and ranked from 1 to 20 based on mean score (Table RO3.5a) and top box percentages (Table RO3.5b).

To prioritize facility types, the rankings were summed to determine a combined, relative ranking index across all four measures. The lowest possible index is a four (Ranked #1 on all four measures), and the highest possible index is an 80 (Ranked #20 on all four measures). Rank percentages indicates what percentage the facility scored out of the highest possible. The lower the score/percentage, the higher the priority.

- **Trails, Multi-use fields, and Playgrounds** all scored within the top ten on all four measures (based on mean), with only **Playgrounds** scoring outside the top five for need of improvement, indicating that overall they are the facility types the most in need of improvement, have the most unmet demand, have increased in popularity over the past five years and are set to increase in popularity in the next five years more than any other facility type.
 - **Trails, Multi-use fields, and Playgrounds** were the top three in unmet local demand, popularity over the last five years and popularity in the next five years
- **Picnic areas, Gardens, Soccer fields, and Nature parks/areas** all ranked in the top ten based on local demand, popularity over the last five years, and popularity in the next five years but all except **Nature parks/areas** were not in the top based on need of improvement, indicating that demand is higher than supply, they have increased in popularity and they are increasing in popularity, and current facilities do not need as much improvement as others.
- **Camping sites** ranked number one for need of improvement but was not in the top ten for any of the other measures, indicating that **Camping sites** need the most improvement (where available) but are not in high demand and not as popular as other facility types.

Table RO3.5a. Q1 through Q4 Facility Means, Ranking, and Facility Index Values

	Q1 Rank	n	\bar{x}	Q2 Rank	n	\bar{x}	Q3 Rank	n	\bar{x}	Q4 Rank	n	\bar{x}	Indexed Ranking	Indexed Percent
Trails	3	147	3.39	1	151	1.69	1	151	1.88	1	151	1.93	6	7.5%
Multi-use fields	2	140	3.39	3	151	1.11	3	151	1.11	3	151	1.17	11	13.8%
Playgrounds	7	151	3.09	2	151	1.16	2	151	1.28	2	151	1.29	13	16.3%
Picnic areas	16	150	2.82	4	151	0.94	4	151	1.04	4	151	1.07	28	35.0%
Gardens	12	123	2.94	7	151	0.72	5	151	1.00	5	151	1.04	29	36.3%
Soccer fields	13	134	2.92	5	151	0.93	6	151	1.00	6	151	1.02	30	37.5%
Nature park/areas	8	124	3.02	8	151	0.60	7	151	0.76	8	151	0.87	31	38.8%
Baseball/softball fields	17	146	2.80	6	151	0.74	8	151	0.72	7	151	0.88	38	47.5%
Outdoor swimming pools	11	132	2.95	10	151	0.49	11	151	0.60	9	151	0.73	41	51.3%
Camping sites	1	71	3.45	13	151	0.23	14	151	0.26	14	151	0.36	42	52.5%
Boating and water sport access sites	6	86	3.09	12	151	0.29	13	151	0.34	12	151	0.52	43	53.8%
Historic/education sites	5	120	3.12	15	151	0.21	12	151	0.39	13	151	0.49	45	56.3%
Football fields	14	106	2.86	11	151	0.47	10	151	0.63	11	151	0.61	46	57.5%
Fishing sites	18	124	2.69	9	151	0.55	9	151	0.64	10	151	0.62	46	57.5%
Outdoor basketball courts	4	132	3.23	14	151	0.22	15	151	0.22	15	151	0.31	48	60.0%
Tennis courts	9	135	3.00	17	151	0.14	18	151	0.11	18	151	0.17	62	77.5%
Target shooting sites	10	58	2.97	18	151	0.01	19	151	0.08	19	151	0.15	66	82.5%
Volleyball courts	15	121	2.86	20	151	-0.13	17	151	0.13	17	151	0.21	69	86.3%
Golf courses	19	97	2.36	19	151	-0.11	17	151	0.13	16	151	0.23	71	88.8%
Hunting sites	20	56	2.32	16	151	0.21	20	151	0.04	20	151	0.10	76	95.0%

- **Trails, Multi-use fields, Gardens, Soccer fields, Playgrounds, and Outdoor swimming pools** were ranked in the top ten (by top box percentage) on all four measures.
- **Football fields, Picnic areas, and Baseball/softball fields** were ranked in the top ten on local demand, popularity over the last five years, and popularity in the next five years, but were not in the top ten for need of improvement, indicating that demand is higher than supply, popularity has increased in the past five years and is increasing in the next five years, and they do not need as much improvement as most other facilities.
- **Boating and water sport access sites, Historic/education sites, Outdoor basketball courts, Tennis courts** were ranked in the top ten for need of improvement but were not ranked in the top ten on any other measures, indicating that they need improvement but are not as popular as some of the other facility types.

Table RO3.5b. Q1 through Q4 Facility Top Box Percentages, Ranking, and Facility Index Values

	Q1 Rank	n	Top Box % (total)	Q2 Rank	n	Top Box %	Q3 Rank	n	Top Box %	Q4 Rank	n	Top Box %	Indexed Ranking	Indexed Percent
Trails	2	38	25.2%	1	51	33.8%	1	54	35.8%	1	58	38.4%	5	6.3%
Multi-use fields	1	39	25.8%	2	35	23.2%	4	23	15.2%	4	20	13.2%	11	13.8%
Gardens	6	25	16.6%	3	28	18.5%	2	29	19.2%	2	27	17.9%	13	16.3%
Soccer fields	8	23	15.2%	5	26	17.2%	3	28	18.5%	3	22	14.6%	19	23.8%
Playgrounds	7	24	15.9%	4	26	17.2%	5	21	13.9%	5	19	12.6%	21	26.3%
Outdoor swimming pools	5	26	17.2%	8	20	13.2%	10	16	10.6%	6	19	12.6%	29	36.3%
Football fields	13	18	11.9%	10	19	12.6%	6	20	13.2%	8	15	9.9%	37	46.3%
Picnic areas	14	18	11.9%	6	25	16.6%	8	19	12.6%	10	14	9.3%	38	47.5%
Baseball/softball fields	17	11	7.3%	7	20	13.2%	7	19	12.6%	7	15	9.9%	38	47.5%
Fishing sites	11	19	12.6%	9	19	12.6%	9	17	11.3%	12	10	6.6%	41	51.3%
Nature park/areas	12	19	12.6%	12	14	9.3%	11	12	7.9%	9	15	9.9%	44	55.0%
Boating and water sport access sites	10	19	12.6%	13	13	8.6%	13	9	6.0%	11	10	6.6%	47	58.8%
Historic/education sites	9	21	13.9%	18	6	4.0%	14	8	5.3%	14	8	5.3%	55	68.8%
Camping sites	15	17	11.3%	15	11	7.3%	12	10	6.6%	13	9	6.0%	55	68.8%
Outdoor basketball courts	4	26	17.2%	14	12	7.9%	20	1	0.7%	18	1	0.7%	56	70.0%
Tennis courts	3	27	17.9%	19	6	4.0%	16	6	4.0%	20	1	0.7%	58	72.5%
Hunting sites	20	6	4.0%	11	17	11.3%	15	7	4.6%	15	7	4.6%	61	76.3%
Volleyball courts	16	15	9.9%	16	7	4.6%	17	5	3.3%	16	5	3.3%	65	81.3%
Golf courses	19	6	4.0%	17	6	4.0%	18	4	2.6%	19	1	0.7%	73	91.3%
Target shooting sites	18	9	6.0%	20	4	2.6%	19	3	2.0%	17	3	2.0%	74	92.5%

Research Objective 3.6 (RO3.6)

- **Determine any other outdoor recreation facilities or activities in Missouri that are popular.**

Respondents were asked the open-ended question, “Are there any other outdoor recreation facilities/activities in your community that you traditionally provide that you have seen decline over the past five years?” Responses were coded, tallied, and sorted by frequency (Table RO3.6a and Chart RO3.6a).

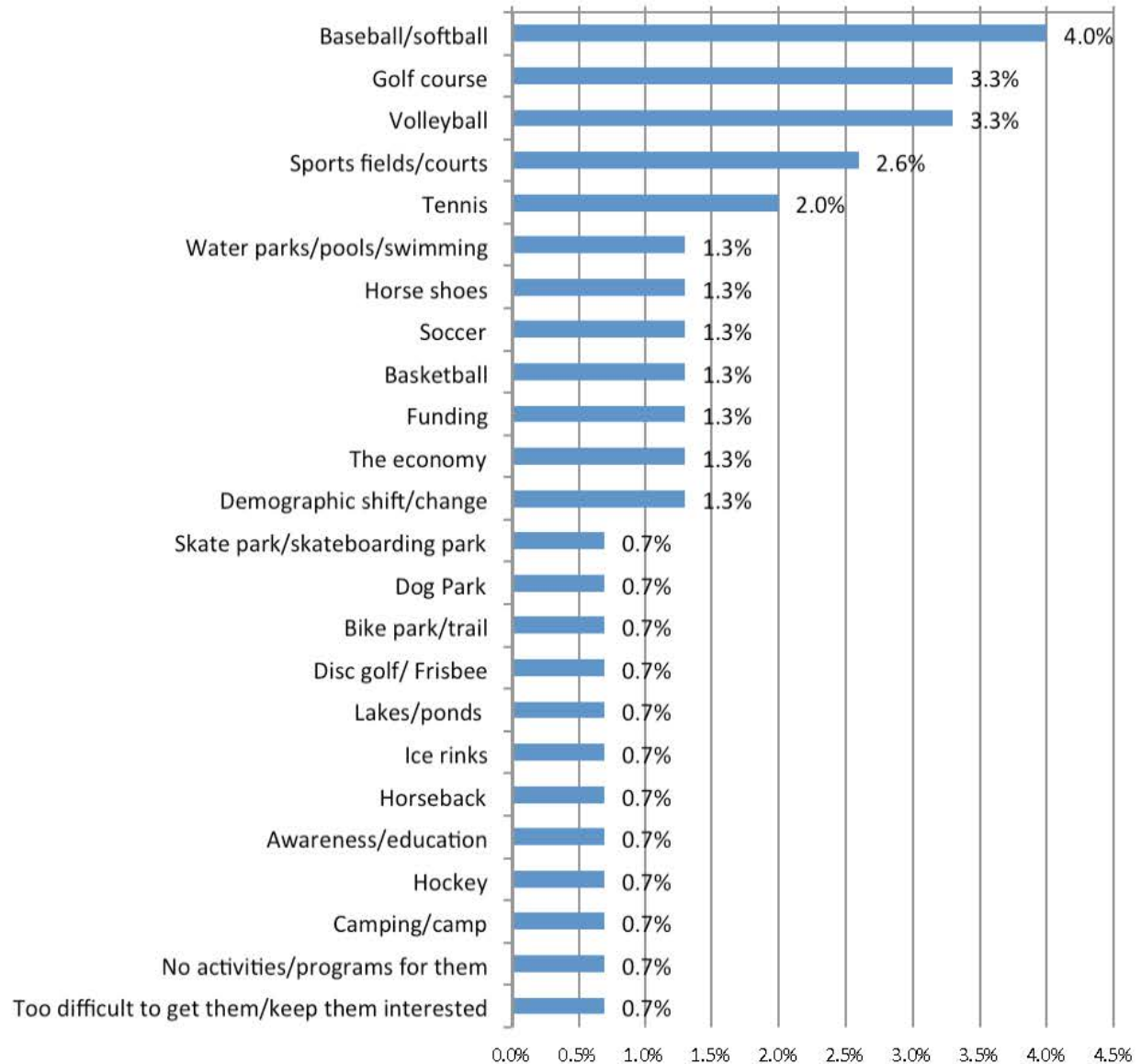
- **Nothing** (70.2%. n=106) was mentioned by more than **70%** of respondents.
- **No other facility type** was mentioned by more than **5%** of respondents.

Table RO3.6a. Q6 Frequencies (open-ended) – Are there any other outdoor recreation facilities/activities in your community that you traditionally provide that you have seen decline over the past five years?

Code	Response	Responses		Percent of Cases
		N	Percent	
29	Baseball/softball	6	3.70%	4.00%
15	Golf course	5	3.10%	3.30%
30	Volleyball	5	3.10%	3.30%
21	Sports fields/courts	4	2.50%	2.60%
31	Tennis	3	1.90%	2.00%
20	Water parks/pools/swimming	2	1.20%	1.30%
22	Horse shoes	2	1.20%	1.30%
32	Soccer	2	1.20%	1.30%
33	Basketball	2	1.20%	1.30%
34	Funding	2	1.20%	1.30%
37	The economy	2	1.20%	1.30%
42	Demographic shift/change	2	1.20%	1.30%
10	Skate park/skateboarding park	1	0.60%	0.70%
11	Dog Park	1	0.60%	0.70%
12	Bike park/trail	1	0.60%	0.70%
14	Disc golf/ Frisbee	1	0.60%	0.70%
18	Lakes/ponds	1	0.60%	0.70%
26	Ice rinks	1	0.60%	0.70%
27	Horseback	1	0.60%	0.70%
35	Awareness/education	1	0.60%	0.70%
40	Hockey	1	0.60%	0.70%
41	Camping/camp	1	0.60%	0.70%
50	No activities/programs for them	1	0.60%	0.70%
52	Too difficult to get them/keep them interested	1	0.60%	0.70%
96	Nothing	106	65.80%	70.20%
99	Other	6	3.70%	4.00%
	Total	161	100.00%	106.60%

Chart RO3.6a.

Q6. Are there any other outdoor recreation facilities/activities in your community that you traditionally provide that you have seen decline over the past five years?



Respondents were asked the **open-ended question**, “Are there any other outdoor recreation facilities/activities that you predict will gain in popularity over the next five years?” Responses were coded, tallied, and sorted by frequency (Table RO3.6b and Chart RO3.6b).

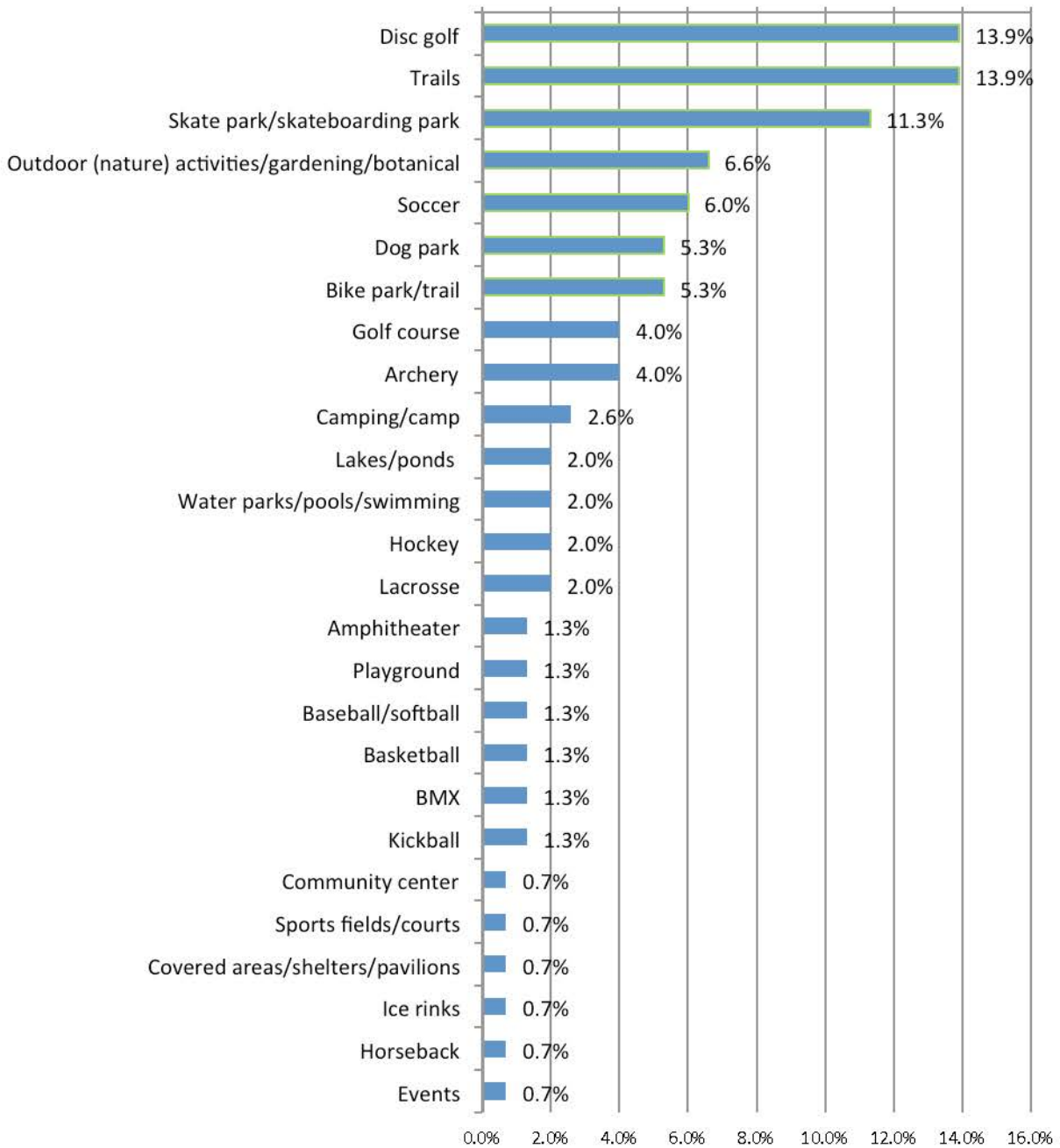
- **Nothing** (25.2%, n=38) was mentioned by more than **25%** of respondents.
- **Disk Golf** and **Trails** (13.9%, n=21), and **Skate park/skateboarding park** (11.3%, n=17) were all mentioned by more than **10%** of respondents.
- **Soccer** (6%, n=9), **Dog park** and **Bike park/trail** (5.3%, n=8) were all mentioned by more than **5%** of respondents.

Table RO3.6b. Q7 Frequencies (open-ended) – Are there any other outdoor recreation facilities/activities that you predict will gain in popularity over the next five years?

Code	Response	Responses		Percent of Cases
		N	Percent	
14	Disc golf	21	11.40%	13.90%
28	Trails	21	11.40%	13.90%
10	Skate park/skateboarding park	17	9.20%	11.30%
43	Outdoor (nature) activities/gardening/botanical	10	5.40%	6.60%
32	Soccer	9	4.90%	6.00%
11	Dog park	8	4.30%	5.30%
12	Bike park/trail	8	4.30%	5.30%
15	Golf course	6	3.20%	4.00%
45	Archery	6	3.20%	4.00%
41	Camping/camp	4	2.20%	2.60%
18	Lakes/ponds	3	1.60%	2.00%
20	Water parks/pools/swimming	3	1.60%	2.00%
40	Hockey	3	1.60%	2.00%
46	Lacrosse	3	1.60%	2.00%
17	Amphitheater	2	1.10%	1.30%
24	Playground	2	1.10%	1.30%
29	Baseball/softball	2	1.10%	1.30%
33	Basketball	2	1.10%	1.30%
44	BMX	2	1.10%	1.30%
48	Kickball	2	1.10%	1.30%
16	Community center	1	0.50%	0.70%
21	Sports fields/courts	1	0.50%	0.70%
25	Covered areas/shelters/pavilions	1	0.50%	0.70%
26	Ice rinks	1	0.50%	0.70%
27	Horseback	1	0.50%	0.70%
47	Events	1	0.50%	0.70%
96	Nothing	38	20.50%	25.20%
99	Other	5	2.70%	3.30%
98	Don't Know	2	1.10%	1.30%
	Total	185	100.00%	122.50%

Chart RO3.6b.

Q7. Are there any other outdoor recreation facilities/activities that you predict will gain in popularity over the next five years?



4. Research Question 4 (RQ4)

- *How adequate are local support components related to outdoor recreation in Missouri?*

Research Objective 4.1 (RO4.1) through Research Objective 4.5 (RO4.5)

- Determine the adequacy of public restroom facilities related to outdoor recreation in Missouri (RO4.1).
- Determine the adequacy of parking in relation to outdoor recreation in Missouri (RO4.2).
- Determine the adequacy of handicap accessibility in relation to outdoor recreation in Missouri (RO4.3).
- Determine the adequacy of drinking water facilities in relation to outdoor recreation in Missouri (RO4.4).
- Determine the adequacy of public transportation to outdoor recreation in Missouri (RO4.5).

All respondents were asked to rate adequacy of park and recreation related support components in their community, with a score of 1 being “Not at All Adequate” and 5 being “Very Adequate”. All respondents provided valid answers and there were no missing values.

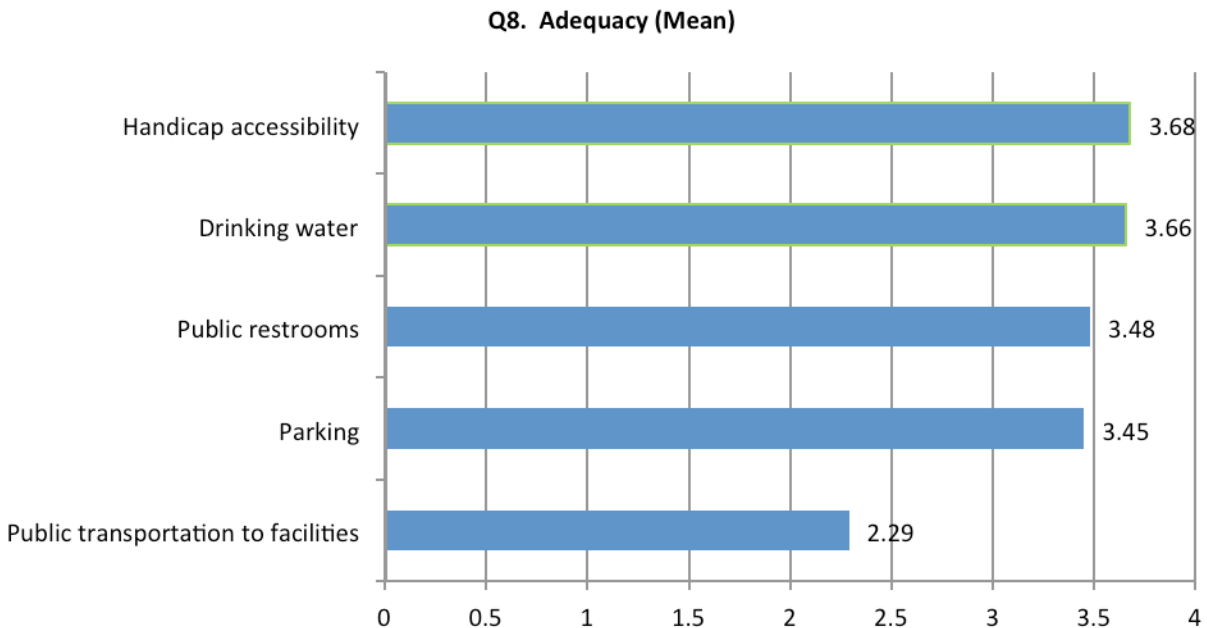
Mean scores were computed for all support components and sorted from low to high (Table RO4.a and Chart RO4.a).

- **Public transportation to facilities** had the lowest mean score at **2.29** and was the only measure to score below the midpoint, indicating that the adequacy of **Public transportation to facilities** is the lowest of all the support related components measured.
 - **Public transportation to facilities** had the highest standard deviation among all the adequacy related measures, indicating that it has the most variance among all the measures.
- **Handicap accessibility** had the highest adequacy mean score of all the support components measured, indicating **Handicap accessibility** is the most adequate support component of all the components measured.

Table RO4.a. Statistics – Q8. Adequacy

Support Component	N	Mean	Std. Deviation	Std. Error Mean
Public transportation to facilities	151	2.29	1.309	0.107
Parking	151	3.45	1.141	0.093
Public restrooms	151	3.48	1.154	0.094
Drinking water	151	3.66	1.177	0.096
Handicap accessibility	151	3.68	1.152	0.094

Chart RO4.a.



Frequencies and percentages were tallied for all respondents (Table RO4.b).

- **Public transportation to facilities** was the only facility type that had a higher percentage of “Not at All Adequate” responses than any other response, with **37.1%** (n=56) of respondents indicating that **Public transportation to facilities** is not at all adequate.
- **Drinking water** was the only facility that had a higher percentage of “Very Adequate” scores than any other response, with **29.8%** (n=45) of respondents indicating that **Drinking water** is very adequate.

Table RO4.b. Q8. Adequacy – Frequencies

Support Component	Very Adequate 5	4	3	2	Not at All Adequate 1
Public transportation to facilities	9.3% (14)	9.9% (15)	18.5% (28)	25.2% (38)	37.1% (56)
Parking	19.9% (30)	31.8% (48)	27.8% (42)	14.6% (22)	6% (9)
Public restrooms	22.5% (34)	26.5% (40)	35.8% (54)	7.3% (11)	7.9% (12)
Drinking water	29.8% (45)	29.1% (44)	23.8% (36)	11.9% (18)	5.3% (8)
Handicap accessibility	25.8% (39)	39.7% (60)	15.9% (24)	13.2% (20)	5.3% (8)

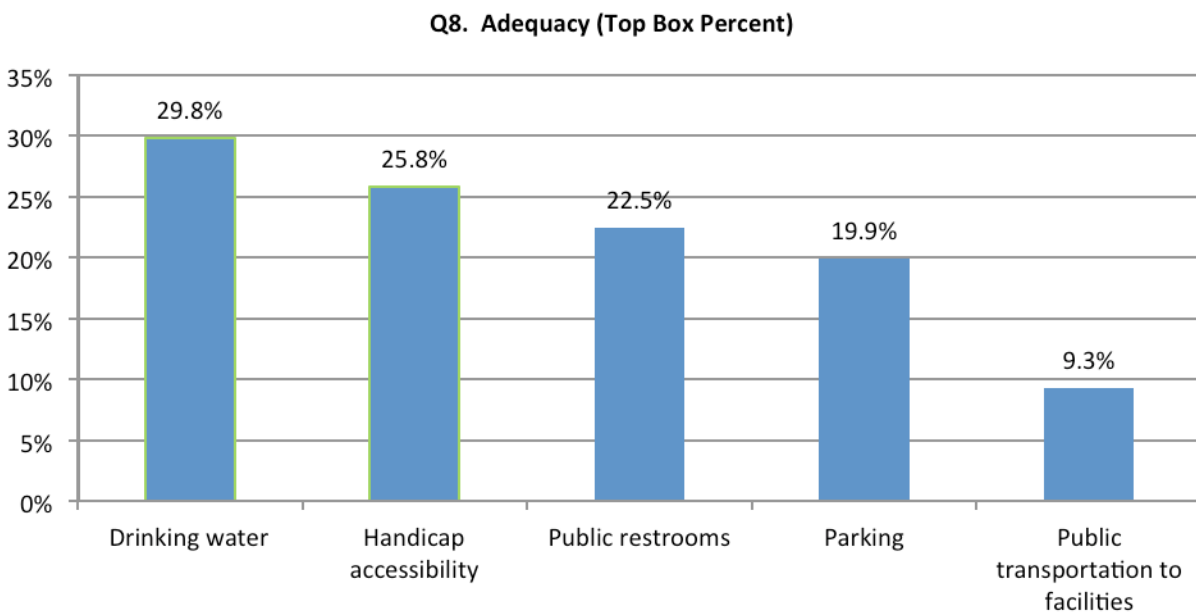
Adequacy frequencies were sorted by the percentage of responses indicating “Very Adequate” (Top Box Percent) and sorted from high to low (Table RO4.c and Chart RO4b).

- **Drinking water** (29.8%, n=45) and **Handicap access** (25.8%, n=39) both had top box percentages greater than **25%**, indicating that more than 1/4th of respondents scored **Drinking water** and **Handicap access** as being very adequate.
- **Public restrooms** (22.5%, n=34) had a top box percentage greater than **20%**, indicating that more than 1/5th of respondents scored **public restrooms** as being very adequate.
- **Parking** (19.9%, n=30) had a top box percentage greater than **15%**, indicating that more than 1/7th of respondents scored **parking** as being very adequate.
- **Public transportation to facilities** (9.3%, n=14) had a top box percentage less than **10%**, indicating that less than 1/10th of respondents scored public transportation to facilities as being very adequate.

Table RO4c. Q8. Adequacy – Frequencies – Very Adequate (Top Box Percent)

Support Component	Very Adequate 5	4	3	2	Not at All Adequate 1
Drinking water	29.8% (45)	29.1% (44)	23.8% (36)	11.9% (18)	5.3% (8)
Handicap accessibility	25.8% (39)	39.7% (60)	15.9% (24)	13.2% (20)	5.3% (8)
Public restrooms	22.5% (34)	26.5% (40)	35.8% (54)	7.3% (11)	7.9% (12)
Parking	19.9% (30)	31.8% (48)	27.8% (42)	14.6% (22)	6% (9)
Public transportation to facilities	9.3% (14)	9.9% (15)	18.5% (28)	25.2% (38)	37.1% (56)

Chart RO4.b.



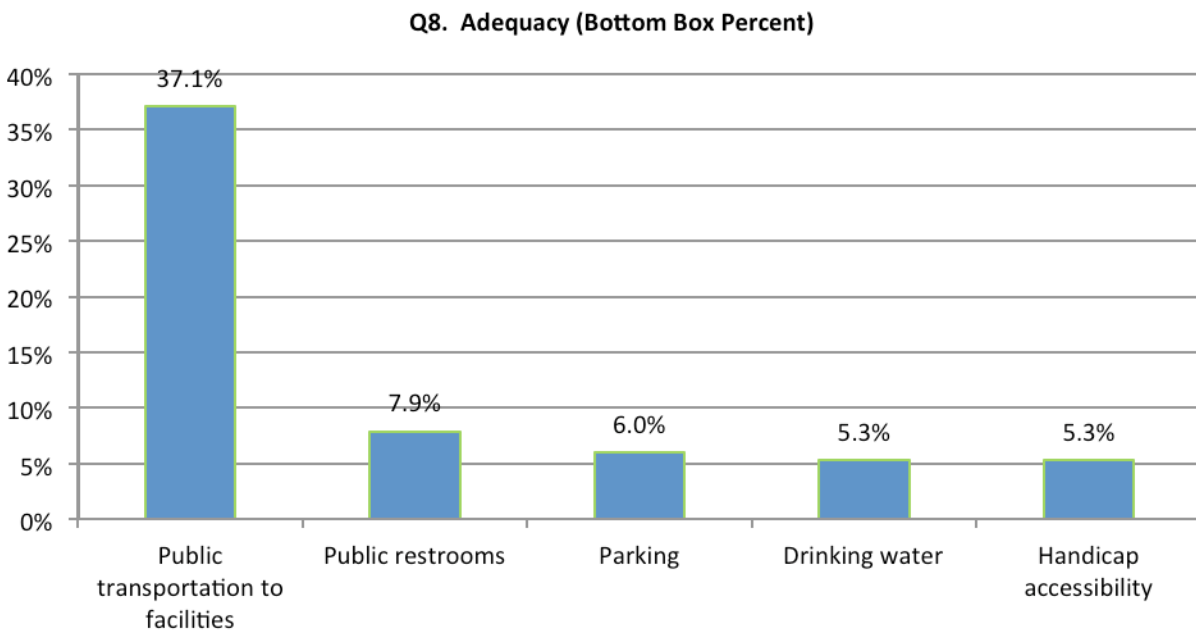
Adequacy frequencies were sorted by the percentage of responses indicating “Not at All Adequate” (Bottom Box Percent) and sorted from high to low (Table RO4.d and Chart RO4.c).

- **Public transportation to facilities** was the only support component that had bottom box score above 10%, with **37.1%** (n=56) of respondents indicating that **Public transportation to facilities** is not at all adequate, indicating that more than 1/3rd of respondents scored **public transportation to facilities** as being not at all adequate.

Table RO4.d. Q8. Adequacy – Frequencies – Not at All Adequate (Bottom Box Percent)

Support Component	Very Adequate 5	4	3	2	Not at All Adequate 1
Public transportation to facilities	9.3% (14)	9.9% (15)	18.5% (28)	25.2% (38)	37.1% (56)
Public restrooms	22.5% (34)	26.5% (40)	35.8% (54)	7.3% (11)	7.9% (12)
Parking	19.9% (30)	31.8% (48)	27.8% (42)	14.6% (22)	6% (9)
Drinking water	29.8% (45)	29.1% (44)	23.8% (36)	11.9% (18)	5.3% (8)
Handicap accessibility	25.8% (39)	39.7% (60)	15.9% (24)	13.2% (20)	5.3% (8)

Chart RO4.c.



Cross-tabs – Urban or Rural/Adequacy

Respondents were classified as either **urban or rural** (based on zip code), cross tabulated by **adequacy**, and mean scores for urban and rural areas were tested for statistically significant differences using an independent samples t-test (95% and 90%) with H_0 = null/no difference in adequacy between rural and urban areas and H_1 = different levels of adequacy between rural and urban areas (Table RO4.e and Table RO4.f).

- **Public transportation to facilities** ($p=.010$), **Public restrooms** ($p=0.015$), and **Handicap accessibility** (0.016) all showed significant differences between urban and rural at the 95% level ($p < 0.05 = H_0$ rejected and H_1 accepted).
 - **Urban** respondents ($\bar{x} = 0.07$, $n=136$) scored higher than **Rural** respondents ($\bar{x} = 1.04$, $n=15$) on , all three measures, indicating that the adequacy of **Public transportation to facilities**, **Public restrooms** and **Handicap accessibility** is significantly higher in urban areas than rural areas.

Cross-tabs – Area Code/Adequacy

Respondents were classified by **area code**, cross tabulated by **adequacy**, sorted high to low by overall mean (Table RO4.a) and mean scores were tested against each other for significance (95%) using an independent sample t-test, with H_0 = null/no difference in adequacy and H_1 = difference in adequacy (Table RO4.g).

- **St. Louis (314)** ($n=34$) area code had the most statistically significant differences, with three differences among two adequacy measures ($p < 0.05 = H_0$ rejected and H_1 accepted)
 - **Handicap accessibility** ($\bar{x} = 3.7$, $n=151$) scored significantly higher in **St. Louis East (314)** ($\bar{x} = 4.1$, $n=34$) compared to **Southwest (417)** ($\bar{x} = 3.2$, $n=18$).
 - **Drinking water** ($\bar{x} = 3.7$, $n=151$) scored significantly higher in **St. Louis East (314)** ($\bar{x} = 4.1$, $n=34$) compared to **Northwest (660)** ($\bar{x} = 2.6$, $n=18$) and **Kansas City-West (816)** ($\bar{x} = 3.5$, $n=41$).
- **Northeast-Central-Southeast (573)** ($n=33$) had one statistically significant difference among one adequacy measure ($p < 0.05 = H_0$ rejected and H_1 accepted).
 - **Drinking water** ($\bar{x} = 3.7$, $n=151$) scored significantly higher in **Northeast-Central-Southeast (573)** ($\bar{x} = 3.6$, $n=33$) compared to **Northwest (660)** ($\bar{x} = 2.6$, $n=18$).
- **Southwest (417)** ($n=18$) had one statistically significant difference among one adequacy measure ($p < 0.05 = H_0$ rejected and H_1 accepted).
 - **Drinking water** ($\bar{x} = 3.7$, $n=151$) scored significantly higher in **Southwest (417)** ($\bar{x} = 3.5$, $n=34$) compared to **Northwest (660)** ($\bar{x} = 2.6$, $n=18$).

Research Objective 4.6 (RO4.6)

- **Determine other potential inadequacies related to outdoor recreation facilities in Missouri.**

Respondents were asked, “Are there any other support related components that you feel are not adequate in your community?” Responses were coded, tallied, and sort by frequency from high to low (Table RO4.6a and RO4.6a).

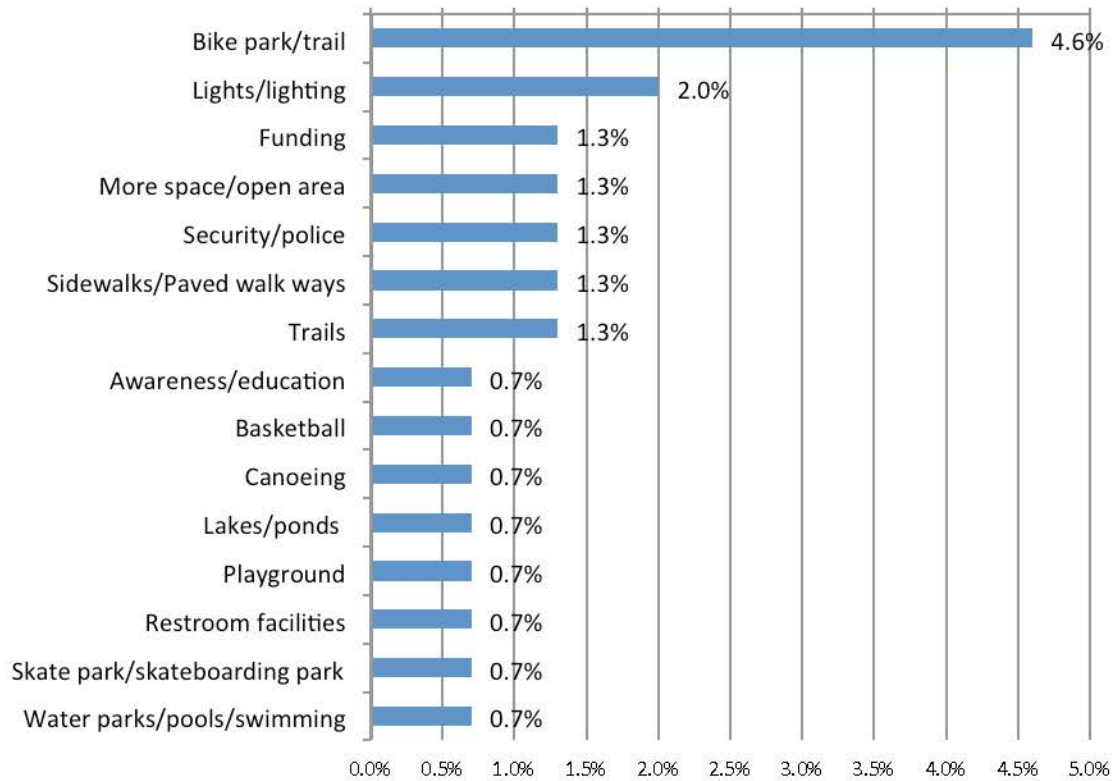
- **Nothing** (80.1%, n=121) was mentioned by more than **80%** of respondents.
- **No other components** were mentioned by more than **5%** of respondents.

Table RO4.6a. Q9 Frequencies – Are there any other support related components that you feel are not adequate in your community?

Code	Response	Responses		Percent of Cases
		N	Percent	
12	Bike park/trail	7	4.50%	4.60%
39	Lights/lighting	3	1.90%	2.00%
34	Funding	2	1.30%	1.30%
23	More space/open area	2	1.30%	1.30%
100	Security/police	2	1.30%	1.30%
49	Sidewalks/Paved walk ways	2	1.30%	1.30%
28	Trails	2	1.30%	1.30%
35	Awareness/education	1	0.60%	0.70%
33	Basketball	1	0.60%	0.70%
61	Canoeing	1	0.60%	0.70%
18	Lakes/ponds	1	0.60%	0.70%
24	Playground	1	0.60%	0.70%
13	Restroom facilities	1	0.60%	0.70%
10	Skate park/skateboarding park	1	0.60%	0.70%
20	Water parks/pools/swimming	1	0.60%	0.70%
96	Nothing	121	78.10%	80.10%
99	Other	6	3.90%	4.00%
	Total	155	100.00%	102.60%

Chart RO4.6a.

Q9. Are there any other support related components that you feel are not adequate in your community?



5. Research Question 5 (RQ5)

- *How large are outdoor recreation priorities in Missouri?*

Research Objective 5.1 (RO5.1) – Research Objective 5.5 (RO5.6)

- Determine if increasing funding for outdoor recreation is a high priority in local communities (RO5.1).
- Determine if maintenance of existing facilities is a high priority in local communities (RO5.2).
- Determine if education is a high priority in local communities (RO5.3)
- Determine if improving communication is a high priority in local communities (RO5.4).
- Determine if improving marketing and public relations efforts are a high priority in local communities (RO5.5).
- Determine if increased preservation effort is a high priority in local communities (RO5.6).

All respondents were asked to rate areas of outdoor recreation improvement in terms of priority, with a score of 1 being “Not a Priority at All” and 5 being “High Priority”. All respondents provided valid answers and there were no missing values.

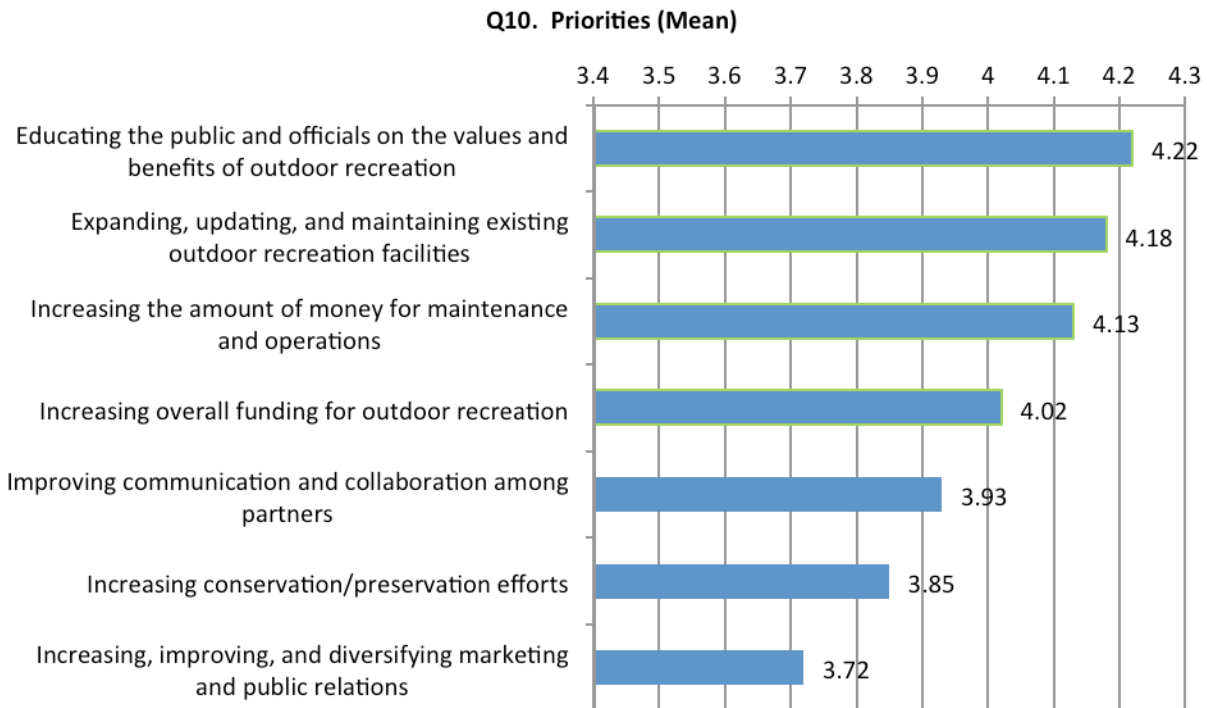
Mean scores were computed for all priorities and sorted from high to low (Table RO5.a and Chart RO5.a).

- **Educating the public and officials on the values and benefits of outdoor recreation** had the highest mean score of **4.22**, indicating that out of all the priority measures, **Educating the public and officials on the values and benefits of outdoor recreation** is considered the highest priority.
- **Expanding, updating, and maintaining existing outdoor recreation facilities** (\bar{x} =4.18), **Increasing the amount of money for maintenance and operations** (\bar{x} =4.13), and **Increasing overall funding for outdoor recreation** (\bar{x} =4.02) all had mean scores greater than **4.0**, indicating that they are high priority among respondents.
- **Improving communication and collaboration among partners** (\bar{x} =3.93), **Increasing conservation/preservation efforts** (\bar{x} =3.85), and **Increasing, improving, and diversifying marketing and public relations** (\bar{x} =3.72) all had mean scores below **4.0**, indicating that they are not as high a priority as the other areas of improvement that were measured.

Table RO5.a. Statistics – Q10. Priorities

Priority	N	Mean	Std. Deviation	Std. Error Mean
Educating the public and officials on the values and benefits of outdoor recreation	151	4.22	1.019	0.083
Expanding, updating, and maintaining existing outdoor recreation facilities	151	4.18	1.001	0.081
Increasing the amount of money for maintenance and operations	151	4.13	1.069	0.087
Increasing overall funding for outdoor recreation	151	4.02	1.104	0.090
Improving communication and collaboration among partners	151	3.93	1.132	0.092
Increasing conservation/preservation efforts	151	3.85	1.079	0.088
Increasing, improving, and diversifying marketing and public relations	151	3.72	1.163	0.095

Chart RO5.a.



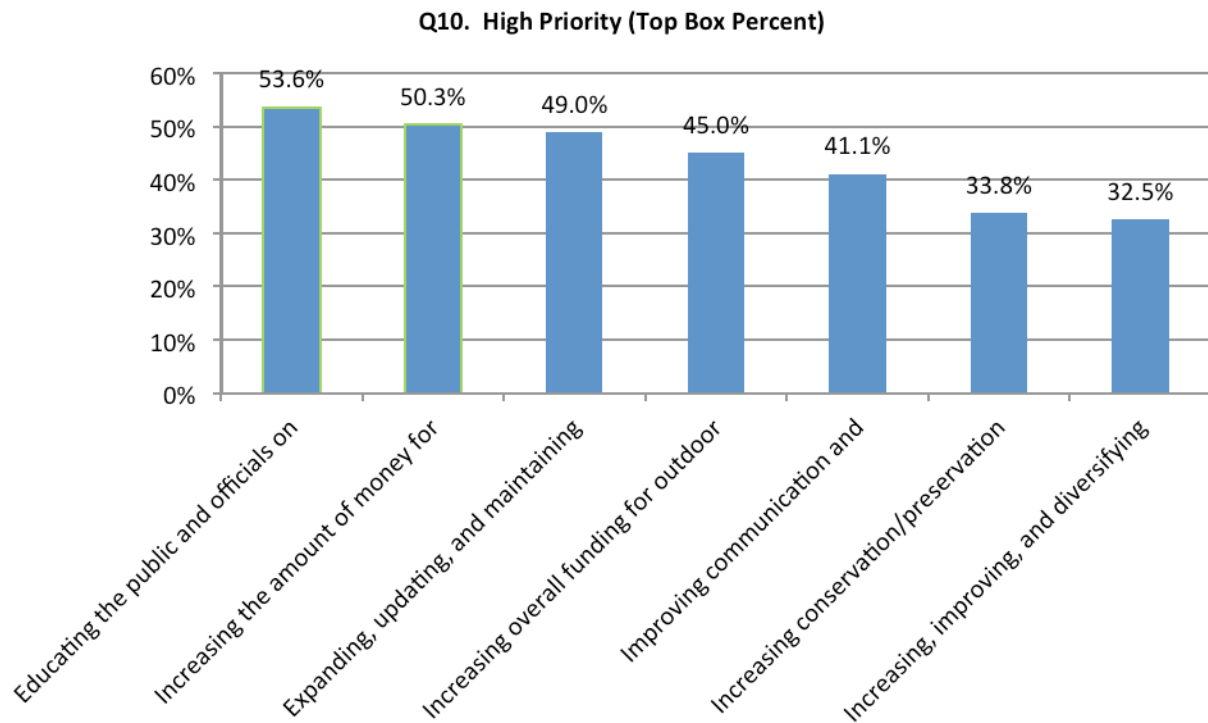
Frequencies and percentages were tallied for all respondents and sorted by the percentage of respondents that answered “High Priority” (Top Box Percent) (Table RO5.b and Chart RO5.b).

- All priority measures had top box percentages above **30%**, indicating that all of them are a high priority.
 - **Educating the public and officials on the values and benefits of outdoor recreation** (53.6%, n=81) and **Increasing the amount of money for maintenance and operations** (50.3%, n=76) both had top box percentages above **50%**, indicating that more than ½ of respondents scored **educating the public and officials on the values and benefits of outdoor recreation** and **increasing the amount of money for outdoor recreation** as being high priority.
 - **Expanding, updating, and maintaining existing outdoor recreation facilities** (49%, n=74), **Increasing overall funding for outdoor recreation** (45%, n=68), and **Improving communication and collaboration among partners** (41.1%, n=62) all had top box percentages above **40%**, indicating that 2/5th of respondents scored **expanding, updating, and maintaining existing outdoor recreation facilities**, **increasing overall funding for outdoor recreation**, and **improving communication and collaboration among partners** as being high priority.
 - **Increasing conservation/preservation efforts** (33.8%, n=51) and **Increasing, improving, and diversifying marketing and public relations** (32.5%, n=49) all had top box percentages above **30%**.
 - More than 1/3rd of respondents scored **increasing conservation/preservation efforts** as a high priority

Table RO5.b. Q10. Priority – Frequencies – High Priority (Top Box Percent

Priority	Not a Priority at All 1	2	3	4	High Priority 5
Educating the public and officials on the values and benefits of outdoor recreation	2.6% (4)	3.3% (5)	17.2% (26)	23.2% (35)	53.6% (81)
Increasing the amount of money for maintenance and operations	2% (3)	7.9% (12)	15.2% (23)	24.5% (37)	50.3% (76)
Expanding, updating, and maintaining existing outdoor recreation facilities	2% (3)	5.3% (8)	14.6% (22)	29.1% (44)	49% (74)
Increasing overall funding for outdoor recreation	3.3% (5)	6.6% (10)	19.9% (30)	25.2% (38)	45% (68)
Improving communication and collaboration among partners	4% (6)	7.3% (11)	21.9% (33)	25.8% (39)	41.1% (62)
Increasing conservation/preservation efforts	3.3% (5)	7.9% (12)	22.5% (34)	32.5% (49)	33.8% (51)
Increasing, improving, and diversifying marketing and public relations	4.6% (7)	10.6% (16)	25.8% (39)	26.5% (40)	32.5% (49)

Chart RO5.b.



Cross-tabs – Urban or Rural/Priority

Respondents were classified as either **urban or rural** (based on zip code), cross tabulated by **priority**, and mean scores for urban and rural areas were tested for statistically significant differences using an independent samples t-test (95% and 90%) with H_0 = null/no difference in priority between rural and urban areas and H_1 = different in priority between rural and urban areas (Table RO5.c and Table RO5.d).

- **Educating the public and officials on the values and benefits of outdoor recreation** ($p=0.027$) was the only priority to show significant differences between urban and rural at the 95% level ($p < 0.05 = H_0$ rejected and H_1 accepted).
 - **Urban** respondents ($\bar{x}=4.28$, $n=136$) scored higher than **Rural** respondents ($\bar{x}=3.67$, $n=15$), indicating that the priority **Educating the public and officials on the values and benefits of outdoor recreation** is significantly larger in urban areas than rural areas.
- **Increasing conservation/preservation efforts** was the only other priority to show significant differences between urban and rural above the 90% level ($p < 0.10 = H_0$ rejected and H_1 accepted).
 - **Urban** respondents ($\bar{x}=3.90$, $n=136$) scored higher than **Rural** respondents ($\bar{x}=3.40$, $n=15$), indicating that the priority **Increasing conservation/preservation efforts** is significantly larger in urban areas than rural areas.

Cross-tabs – Area Code/Priority

Respondents were classified by **area code**, cross tabulated by **priority**, sorted high to low by overall mean (Table 10a), and mean scores were tested against each other for significance (95%) using an independent sample t-test, with H_0 = null/no difference in improvement and H_1 = different improvement needs (Table RO5.e).

- **Kansas City-West (816)** ($n=41$) area code had three significant differences among three of the priorities:
 - **Educating the public and officials on the values and benefits of outdoor recreation** ($\bar{x}=4.2$, $n=151$) scored significantly higher in **Kansas City-West (816)** ($\bar{x}=4.5$, $n=41$) compared to **East-Central (636)** ($\bar{x}=3.6$, $n=17$).
 - **Improving communication and collaboration among partners** ($\bar{x}=4.2$, $n=151$) scored significantly higher in **Kansas City-West (816)** ($\bar{x}=4.2$, $n=41$) compared to **St. Louis (314)** ($\bar{x}=3.6$, $n=17$).
 - **Increasing, improving, and diversifying marketing and public relations** ($\bar{x}=3.7$, $n=151$) scored significantly higher in **Kansas City-West (816)** ($\bar{x}=4.0$, $n=41$) compared to **East-Central (636)** ($\bar{x}=2.9$, $n=17$).
- **Northeast-Central-Southeast (573)** ($n=33$) area code had three significant differences among two of the priorities:
 - **Expanding, updating, and maintaining existing outdoor recreation facilities** ($\bar{x}=4.2$, $n=151$) scored significantly higher in **Northeast-Central-Southeast (573)** ($\bar{x}=4.5$, $n=41$) compared to **St. Louis (314)** ($\bar{x}=3.9$, $n=17$) and **East-Central (636)** ($\bar{x}=3.7$, $n=17$).
 - **Increasing, improving, and diversifying marketing and public relations** ($\bar{x}=3.7$, $n=151$) scored significantly higher in **Northeast-Central-Southeast (573)** ($\bar{x}=3.7$, $n=33$) compared to **East-Central (636)** ($\bar{x}=2.9$, $n=17$).
- **St. Louis (314)** ($n=34$) area code had one significant difference among one of the priorities:
 - **Increasing, improving, and diversifying marketing and public relations** ($\bar{x}=3.7$, $n=151$) scored significantly higher in **St. Louis (314)** ($\bar{x}=3.8$, $n=34$) compared to **East-Central (636)** ($\bar{x}=2.9$, $n=17$).

6. Research Question 6 (RQ6)

- *How large are the obstacles to preventing improvement in outdoor recreation in Missouri?*

Research Objective 6.1 (RO6.1) through Research Objective 6.5 (RO6.5)

- Determine if low priority/support for outdoor recreation is an obstacle to improving outdoor recreation in local communities (RO6.1).
- Determine if funding issues are an obstacle to improving outdoor recreation in local communities (RO6.2).
- Determine if outdoor recreation management is an obstacle to improving outdoor recreation in local communities (RO6.3).
- Determine if safety is an obstacle to improving outdoor recreation in local communities (RO6.4).
- Determine if land issues are an obstacle to improving outdoor recreation in local communities (RO6.5).

All respondents were asked to rate potential obstacles that may prevent outdoor recreation improvement, with a score of 1 being “Not an Obstacle at All” and 5 being “Very Large Obstacle”. All respondents provided valid answers and there were no missing values.

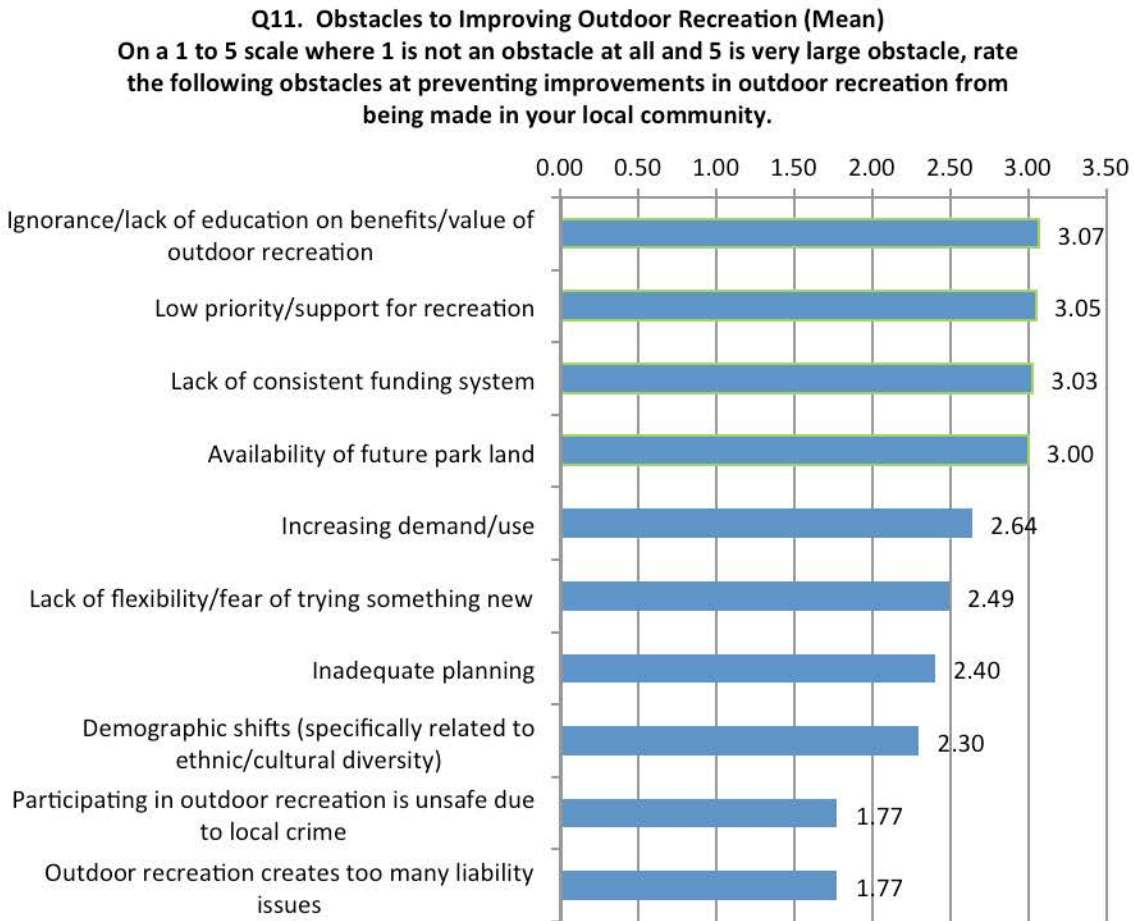
Mean scores were computed for all obstacles and sorted from high to low (Table RO6.a and Chart RO6.a).

- **Ignorance/lack of education on benefits/values of outdoor recreation** (\bar{x} =3.07), **Low priority/support for recreation** (\bar{x} =3.05), **Lack of consistent funding system** (\bar{x} =3.03), and **Availability of future park land** (\bar{x} =3.0) all scored above a 3.0, indicating that they are the largest obstacles to improving outdoor recreation.
- **Increasing demand/use** (\bar{x} =2.64) was the only obstacle to score between **2.5** and **3.0**.
- **Lack of flexibility/fear of trying something new** (\bar{x} =2.49), **Inadequate planning** (\bar{x} =2.40), and **Demographic shifts** (\bar{x} =2.30) scored between **2.0** and **2.5**.
- **Participating in outdoor recreation is unsafe due to local crime** and **Outdoor recreation creates too many liability issues** (\bar{x} =1.77) both scored lower than a **2.0**, indicating that they are the smallest obstacles to improving outdoor recreation.

Table RO6.a. Statistics – Q11. Obstacles to Improving Outdoor Recreation

Obstacle	N	Mean	Std. Deviation	Std. Error Mean
Ignorance/lack of education on benefits/value of outdoor recreation	151	3.07	1.332	0.108
Low priority/support for recreation	151	3.05	1.336	0.109
Lack of consistent funding system	151	3.03	1.428	0.116
Availability of future park land	151	3.00	1.456	0.118
Increasing demand/use	151	2.64	1.282	0.104
Lack of flexibility/fear of trying something new	151	2.49	1.351	0.110
Inadequate planning	151	2.40	1.201	0.098
Demographic shifts (specifically related to ethnic/cultural diversity)	151	2.30	1.232	0.100
Participating in outdoor recreation is unsafe due to local crime	151	1.77	1.110	0.090
Outdoor recreation creates too many liability issues	151	1.77	0.981	0.080

Chart RO6.a.



Frequencies and percentages were tallied for all respondents (Table RO6.b).

- Scores on the issues **Participating in outdoor recreation is unsafe due to local crime** (60.3%, n=91), **Outdoor recreation creates too many liability issues** (51%, n=77), **Demographic shifts** (35.1%, n=53), **Lack of flexibility/fear of trying something new** (33.8%, n=51) indicate that they are not large obstacles when it comes to improving local outdoor recreation.
- **Availability of future park land** (24.5%, n=37) had an equal number of “Not an Obstacle at All” responses as “3” (midpoint) responses, indicating that the issue **Availability of future park land** varies among respondents as an obstacle to improving outdoor recreation.

Table RO6.b. Q11. Obstacle – Frequencies

Obstacles	Not an Obstacle at All 1	2	3	4	Very Large Obstacle 5
Low priority/support for recreation	19.2% (29)	10.6% (16)	33.8% (51)	18.5% (28)	17.9% (27)
Lack of consistent funding system	19.2% (29)	19.2% (29)	24.5% (37)	13.9% (21)	23.2% (35)
Ignorance/lack of education on benefits/value of outdoor recreation	15.9% (24)	17.2% (26)	30.5% (46)	16.6% (25)	19.9% (30)
Inadequate planning	27.8% (42)	28.5% (43)	26.5% (40)	9.9% (15)	7.3% (11)
Lack of flexibility/fear of trying something new	33.8% (51)	17.2% (26)	25.8% (39)	12.6% (19)	10.6% (16)
Increasing demand/use	25.8% (39)	18.5% (28)	31.1% (47)	14.6% (22)	9.9% (15)
Demographic shifts (specifically related to ethnic/cultural diversity)	35.1% (53)	22.5% (34)	27.2% (41)	7.9% (12)	7.3% (11)
Participating in outdoor recreation is unsafe due to local crime	60.3% (91)	15.9% (24)	12.6% (19)	9.3% (14)	2% (3)
Outdoor recreation creates too many liability issues	51% (77)	29.8% (45)	11.3% (17)	6.6% (10)	1.3% (2)
Availability of future park land	24.5% (37)	11.3% (17)	24.5% (37)	19.2% (29)	20.5% (31)

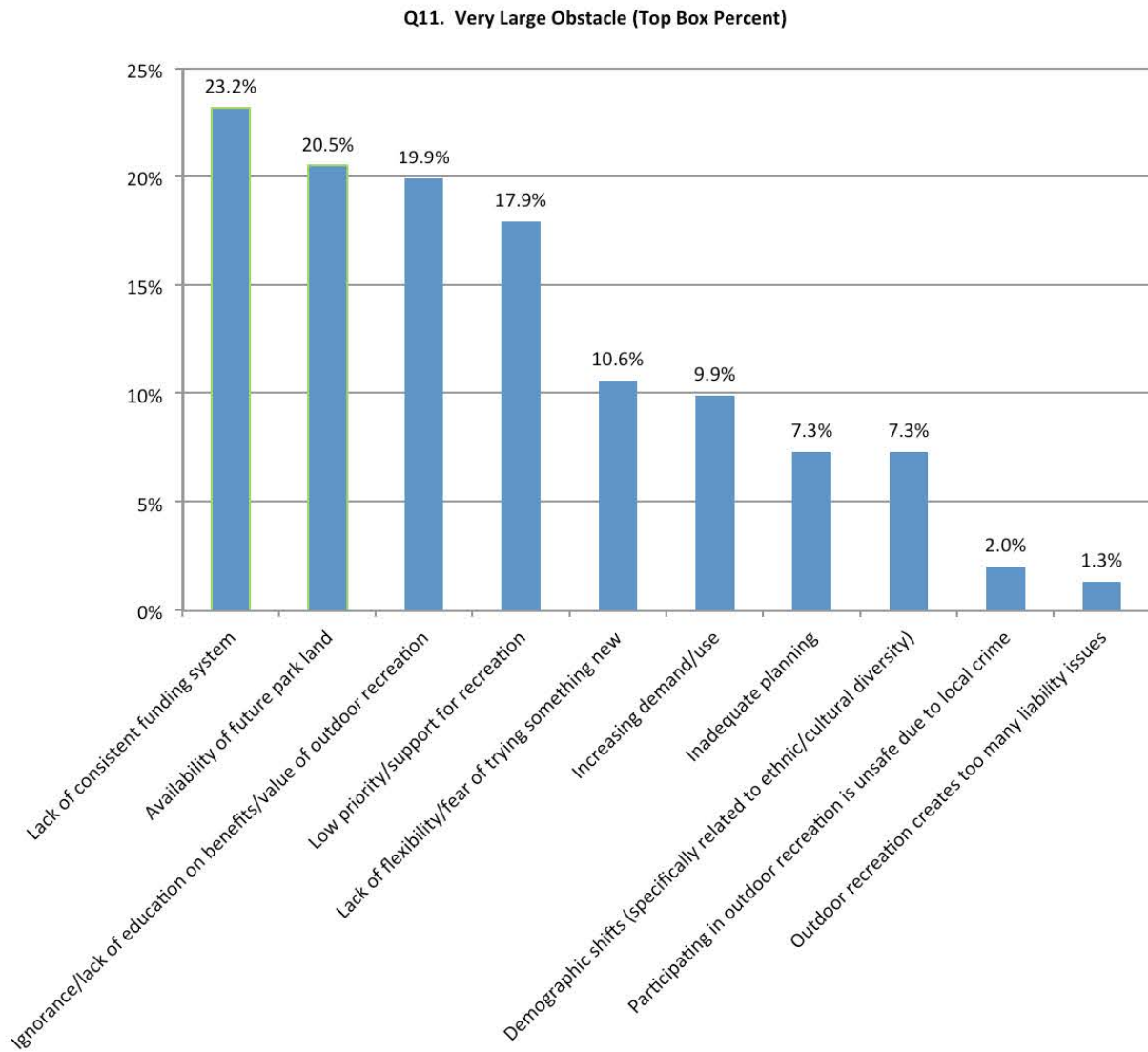
Frequencies and percentages were tallied for all respondents and sorted by the percentage of respondents that answered “Very Large Obstacle” (Top Box Percent) (Table RO6.c and Chart RO6.b).

- **Lack of consistent funding system** (23.2%, n=35) and **Availability of future park land** (24.5%, n=37) both had top box percentages above **20%**, indicating that more than 1/5th of respondents scored **Lack of consistent funding system** and **Availability of future park land** as very large obstacles.
 - The frequency distribution of **Availability of Future park land** (Chart 11d), with a large standard deviation of **1.45**, indicates that **Availability of future park land** has a large amount of variance, indicating the values are more widely distributed around the mean (\bar{x} = 3.00).
 - Bottom box score was greater than top box score for Availability of future park land, indicating that opinion was not consistent as to whether or not **Availability of future park land** is an obstacle.
 - The frequency distribution of **Lack of consistent funding system** (Chart 11e) also displayed a high level of variance with a standard deviation of **1.42**, indicating that **Lack of consistent funding system** varies among respondents and is widely distributed around the mean (\bar{x} = 3.03).

Table RO6.c. Q11. Obstacle – Frequencies – Very Large Obstacle (Top Box Percent)

Obstacles	Not an Obstacle at All 1	2	3	4	Very Large Obstacle 5
Lack of consistent funding system	19.2% (29)	19.2% (29)	24.5% (37)	13.9% (21)	23.2% (35)
Availability of future park land	24.5% (37)	11.3% (17)	24.5% (37)	19.2% (29)	20.5% (31)
Ignorance/lack of education on benefits/value of outdoor recreation	15.9% (24)	17.2% (26)	30.5% (46)	16.6% (25)	19.9% (30)
Low priority/support for recreation	19.2% (29)	10.6% (16)	33.8% (51)	18.5% (28)	17.9% (27)
Lack of flexibility/fear of trying something new	33.8% (51)	17.2% (26)	25.8% (39)	12.6% (19)	10.6% (16)
Increasing demand/use	25.8% (39)	18.5% (28)	31.1% (47)	14.6% (22)	9.9% (15)
Inadequate planning	27.8% (42)	28.5% (43)	26.5% (40)	9.9% (15)	7.3% (11)
Demographic shifts (specifically related to ethnic/cultural diversity)	35.1% (53)	22.5% (34)	27.2% (41)	7.9% (12)	7.3% (11)
Participating in outdoor recreation is unsafe due to local crime	60.3% (91)	15.9% (24)	12.6% (19)	9.3% (14)	2% (3)
Outdoor recreation creates too many liability issues	51% (77)	29.8% (45)	11.3% (17)	6.6% (10)	1.3% (2)

Chart RO6.b.



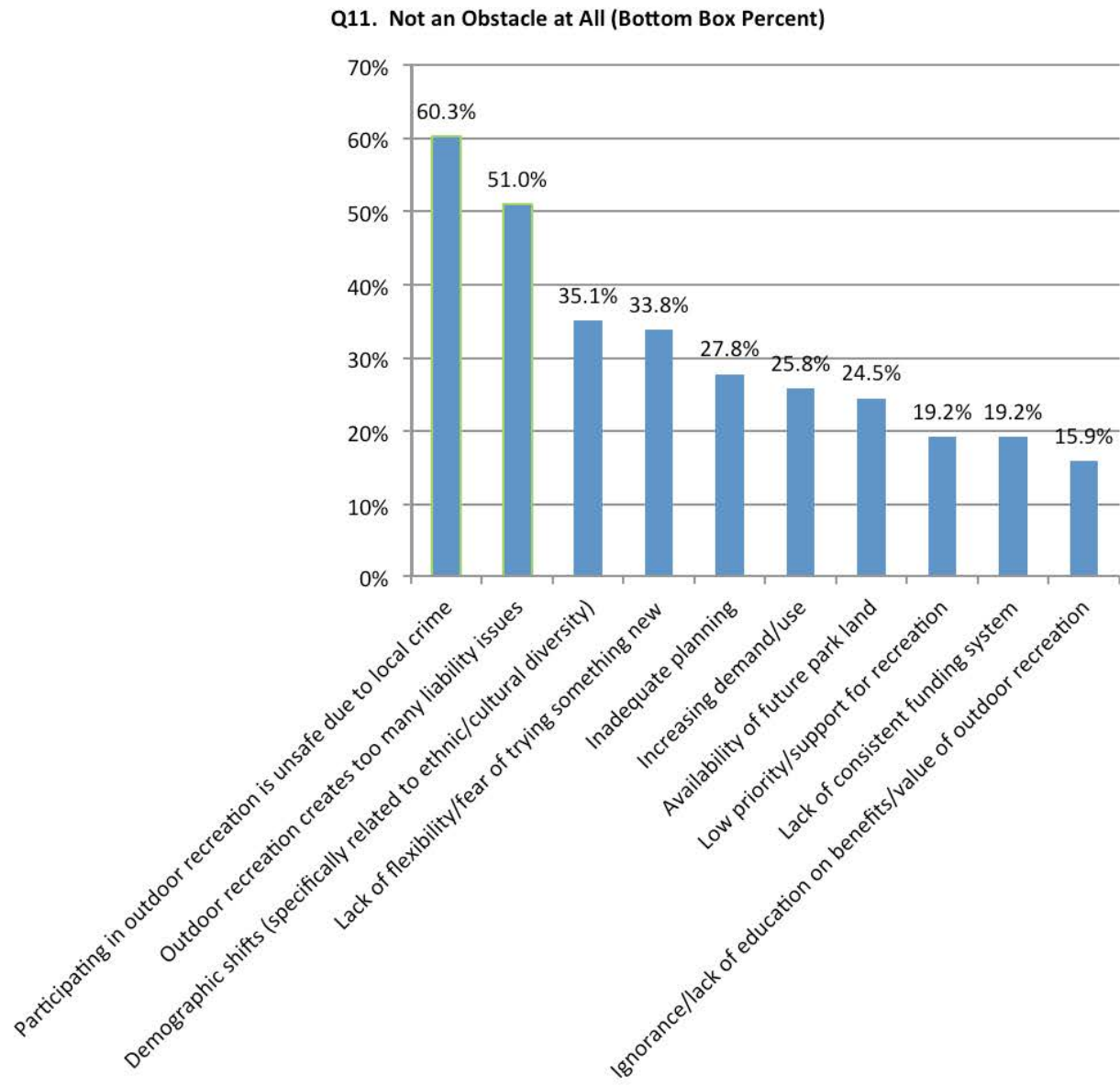
Frequencies and percentages were tallied for all respondents and sorted by the percentage of respondents that answered “Not an Obstacle at All” (Bottom Box Percent) (Table RO6.d and Chart RO6.c).

- **Participating in outdoor recreation is unsafe due to local crime** was the only obstacle that had a bottom box percentage above **60%**, with **60.3%** (n=91) indicating that **Participating in outdoor recreation is unsafe due to local crime** is not an obstacle to improving outdoor recreation.
- **Outdoor recreation creates too many liability issues** had a bottom box score greater than **50%**, with **51%** (n=77) indicating that **Outdoor recreation creates too many liability issues** is not an obstacle to improving outdoor recreation.
- **Demographic shifts** had a bottom box percentage greater than **30%**, with **35.1%** (n=53) – more than 1/3rd – indicating that **Demographic shifts** are not an obstacle to improving outdoor recreation.
- **Inadequate planning** (27.8%, n=42) and **Increasing demand/use** (25.8%, n=39) had bottom box percentages greater than **25%**, indicating that more than 1/4th of respondents indicate that **inadequate planning** and **increasing demand/use** are not an obstacle at all to improving outdoor recreation.
- **Availability of future park land** (24.5%, n=37) had a bottom box percentage greater than **20%**, indicating that more than 1/5th of respondents scored **availability of future park land** as not an obstacle at all to improving outdoor recreation.
- **Low priority/support for recreation** (19.2%, n=29), **Lack of consistent funding system** (19.2%, n=29), and **Ignorance/lack of education on benefits/values of recreation** (15.9%, n=24), all had bottom box percentages greater than 15%, indicating that 1/7th of respondents scored **Low priority/support for recreation**, **Lack of consistent funding system**, and **Ignorance/lack of education on benefits/values of recreation** as not being an obstacle at all to improving outdoor recreation.

Table RO6.d. Q11. Obstacle – Frequencies – Not an Obstacle at All (Bottom Box Percent)

Obstacles	Not an Obstacle at All 1	2	3	4	Very Large Obstacle 5
Participating in outdoor recreation is unsafe due to local crime	60.3% (91)	15.9% (24)	12.6% (19)	9.3% (14)	2% (3)
Outdoor recreation creates too many liability issues	51% (77)	29.8% (45)	11.3% (17)	6.6% (10)	1.3% (2)
Demographic shifts (specifically related to ethnic/cultural diversity)	35.1% (53)	22.5% (34)	27.2% (41)	7.9% (12)	7.3% (11)
Lack of flexibility/fear of trying something new	33.8% (51)	17.2% (26)	25.8% (39)	12.6% (19)	10.6% (16)
Inadequate planning	27.8% (42)	28.5% (43)	26.5% (40)	9.9% (15)	7.3% (11)
Increasing demand/use	25.8% (39)	18.5% (28)	31.1% (47)	14.6% (22)	9.9% (15)
Availability of future park land	24.5% (37)	11.3% (17)	24.5% (37)	19.2% (29)	20.5% (31)
Low priority/support for recreation	19.2% (29)	10.6% (16)	33.8% (51)	18.5% (28)	17.9% (27)
Lack of consistent funding system	19.2% (29)	19.2% (29)	24.5% (37)	13.9% (21)	23.2% (35)
Ignorance/lack of education on benefits/value of outdoor recreation	15.9% (24)	17.2% (26)	30.5% (46)	16.6% (25)	19.9% (30)

Chart RO6.c



Cross-tabs – Urban or Rural/Obstacles

Respondents were classified as either **urban or rural** (based on zip code), cross tabulated by **obstacles**, and mean scores for urban and rural areas were tested for statistically significant differences using an independent samples t-test (95% and 90%) with H_0 = null/no difference in obstacles between rural and urban areas and H_1 = difference between obstacles between rural and urban obstacles (Table RO6.e and Table RO6.f).

- **Lack of consistent funding system** ($p=0.043$) was the only obstacle to show significant differences at the 95% level ($p < 0.05$ = H_0 rejected and H_1 accepted).
 - **Rural** respondents ($\bar{x}=3.73$, $n=15$) scored higher than **Urban** respondents ($\bar{x}=2.95$, $n=136$), indicating that the **Lack of a consistent funding system** is a significantly larger obstacle in rural areas than urban areas.
- **Availability of future park land** ($p=0.061$) and **Participating in outdoor recreation is unsafe due to local crime** ($p=0.065$) were the only other obstacles that showed significant differences between urban and rural at the 90% level ($p < 0.10$ = H_0 rejected and H_1 accepted).
 - **Rural** respondents ($\bar{x}=3.67$, $n=15$) scored higher than **Urban** respondents ($\bar{x}=2.93$, $n=136$), indicating that **Availability of future park land** is a significantly larger obstacle in rural areas than urban areas.
 - **Urban** respondents ($\bar{x}=1.82$, $n=15$) scored higher than **Rural** respondents ($\bar{x}=1.27$, $n=15$), indicating that **Participating in outdoor recreation is unsafe due to local crime** is a significantly larger obstacle in urban areas than rural areas.

Cross-tabs – Area Code/Obstacles

Respondents were classified by **area code**, cross tabulated by **obstacle**, sorted high to low by overall mean (Table 11a), and mean scores were tested against each other for significance (95%) using an independent sample t-test, with H_0 = null/no difference in obstacles between the two area codes and H_1 = difference in obstacles between the two area codes (Table RO6.g).

- **Kansas City-West (816)** ($n=41$) area code had three significant differences, as compared to other regions, among two of the obstacles ($p < 0.05$ = H_0 rejected and H_1 accepted).
 - **Ignorance/lack of education on benefits/value of outdoor recreation** ($\bar{x}=3.1$, $n=151$) scored significantly higher in **Kansas City-West (816)** ($\bar{x}=3.5$, $n=41$) compared to **Northeast-Central-Southeast (573)** ($\bar{x}=2.8$, $n=33$) and **East-Central (636)** ($\bar{x}=2.6$, $n=17$).
 - **Low priority/support for recreation** ($\bar{x}=3.1$, $n=151$) scored significantly higher in **Kansas City-West (816)** ($\bar{x}=3.3$, $n=41$) compared to **Northeast-Central-Southeast (573)** ($\bar{x}=2.7$, $n=33$).
- **St. Louis-East (314)** ($n=34$) area code had three significant differences, as compared to other regions, among two of the obstacles ($p < 0.05$ = H_0 rejected and H_1 accepted).
 - **Availability of future parkland** ($\bar{x}=3.0$, $n=151$) scored significantly higher in **St. Louis-East (314)** ($\bar{x}=3.7$, $n=34$) compared to **Northeast-Central-Southeast (573)** ($\bar{x}=2.6$, $n=33$) and **Kansas City-West (816)** ($\bar{x}=2.8$, $n=41$).
 - **Outdoor recreation creates too many liability issues** ($\bar{x}=1.8$, $n=151$) scored significantly higher in **St. Louis-East (314)** ($\bar{x}=2.1$, $n=34$) compared to **Kansas City-West (816)** ($\bar{x}=1.6$, $n=41$).

7. Research Question 7 (RQ7)

- *How well are the needs of various age groups being met?*

Research Objective 7.1 (RO7.1) through Research Objective 7.6 (RO7.6)

- Determine how well current local outdoor recreation facilities meet the needs of 0 to 5 year olds. (RO7.1).
- Determine how well current local outdoor recreation facilities meet the needs of 6 to 12 year olds. (RO7.2).
- Determine how well current local outdoor recreation facilities meet the needs of 13 to 18 year olds. (RO7.3).
- Determine how well current local outdoor recreation facilities meet the needs of 19 to 34 year olds. (RO7.4).
- Determine how well current local outdoor recreation facilities meet the needs of 35 to 54 year olds. (RO7.5).
- Determine how well current local outdoor recreation facilities meet the needs of 55 years or older. (RO7.6).

All respondents were asked to rate how well they are able to meet the needs of the following age groups, 0 to 5 year olds, 6 to 12 year olds, 13 to 18 year olds, 19 to 34 year olds, 35 to 54 year olds, and 55 and older, using a 1 to 5 with a score of 1 being “Needs are not Being Met at All” and 5 being “Needs are Being Met Very Well”. All respondents provided valid answers and there were no missing values.

Mean scores were computed for all age ranges (Table RO7.a and Chart RO7.a) with the following results, from highest score to lowest score:

- **6 to 12 year olds** (\bar{x} =4.07) had the highest mean score, and the only mean score above 4.0, indicating the needs of 6 to 12 year olds are being met more than any other age group.
- **19 to 34 year olds** (\bar{x} =3.75), **35 to 54 year olds** (\bar{x} =3.75), **55 years and older** (\bar{x} =3.60), and **0 to 5 year olds** (\bar{x} =3.50) all scored between **3.5** and **4.0**.
 - A paired samples t-test was used to test for statistically significant differences between **19 to 34 year olds** (\bar{x} =3.75) and **35 to 54 year olds** (\bar{x} =3.75), with H_0 = null/no difference in needs between **19 to 34 year olds** and **35 to 54 year olds** and H_1 = difference in needs between **19 to 34 year olds** and **35 to 54 year olds** (Table RO7.b and Table RO7c).
 - A p-value of **0.919** indicates that the difference between mean values are not statistically significant ($p > 0.05$ at 95% and $p > 0.10$ at 90%), and therefore the needs of **19 to 34 year olds** are statistically equal to the needs of **35 to 54 year olds**.
- **13 to 18 year olds** (\bar{x} =3.75) was the only age range to score below **3.0**, indicating that **13 to 18 year olds** have the most unmet needs out of all the age ranges.

Table R07.a. One-Sample Statistics – Q12. Needs Being Met

	N	Mean	Std. Deviation	Std. Error Mean
0 - 5 year olds	151	3.50	1.142	0.093
6 - 12 year olds	151	4.07	0.877	0.071
13 - 18 year olds	151	2.92	1.158	0.094
19 - 34 year olds	151	3.75	0.903	0.074
35 - 54 year olds	151	3.75	0.931	0.076
55 years and older	151	3.60	1.184	0.096

Chart R07.a.

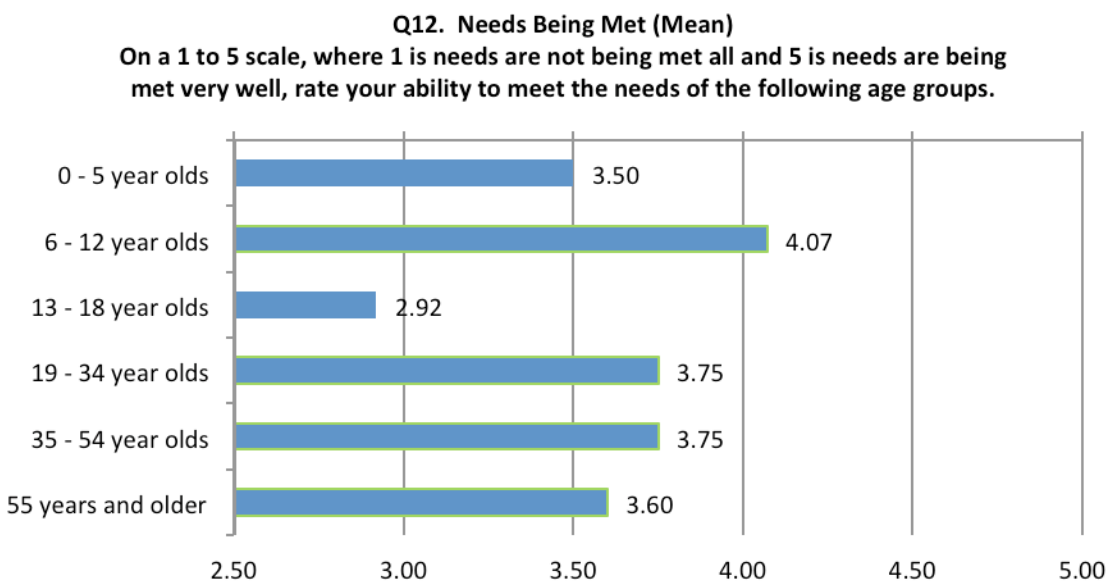
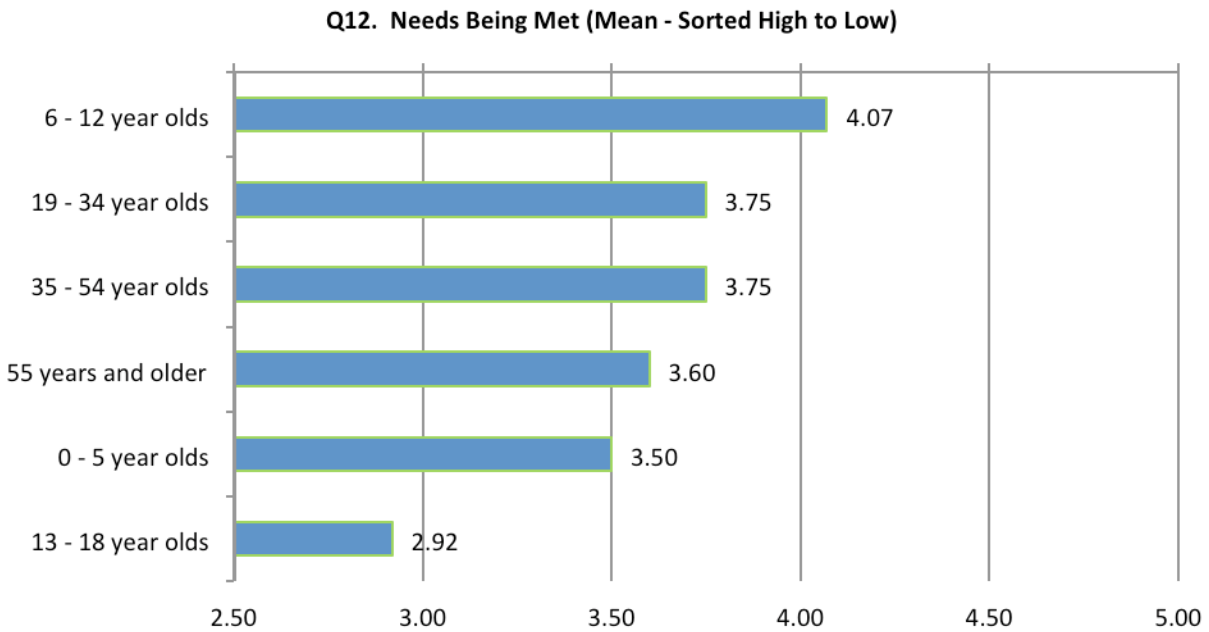


Chart RO7.b.



Frequencies and percentages were tallied for all respondents (Table RO7.d).

- **13 to 18 year olds** (32.8%, n=51) and **13 to 18 year olds** (33.1%, n=47) had more 3/5 scores than any other value, indicating that they have the most unmet needs.
- **19 to 34 year olds** (50.3%, n=76), **6 to 12 year olds** (47%, n=71), **35 to 54 year olds** (39.7%, n=60), and **55 years and older** (29.8%, n=45), all had more 4/5 scores than any other measure, indicating that needs for those age groups are being met better than the others.

Table RO7.d. Q12. Needs Being Met – Frequencies

	Needs not being met at all 1	2	3	4	Needs being met very well 5
0 - 5 year olds	5.3% (8)	13.2% (20)	31.1% (47)	27.2% (41)	23.2% (35)
6 - 12 year olds	2% (3)	2.6% (4)	15.2% (23)	47% (71)	33.1% (50)
13 - 18 year olds	11.3% (17)	25.8% (39)	33.8% (51)	17.9% (27)	11.3% (17)
19 - 34 year olds	2% (3)	7.3% (11)	22.5% (34)	50.3% (76)	17.9% (27)
35 - 54 year olds	2% (3)	5.3% (8)	30.5% (46)	39.7% (60)	22.5% (34)
55 years and older	6% (9)	12.6% (19)	24.5% (37)	29.8% (45)	27.2% (41)

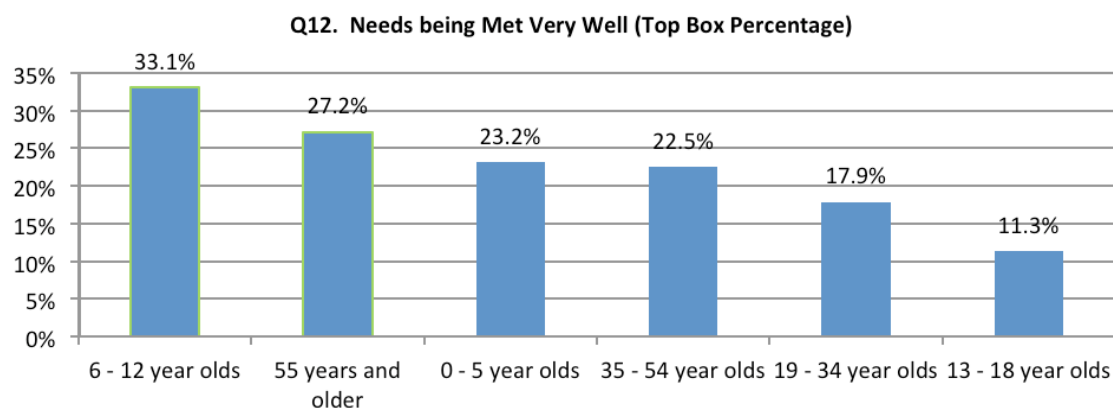
Frequencies and percentages were tallied for all respondents and sorted by the percentage of respondents that answered “Needs Being Met Very Well” (Top Box Percent) (Table RO7.e and Chart RO7.c).

- **6 to 12 year olds** (33.1%, n=50) had a top box percent above **30%**, indicating that more than 1/3rd of respondents scored the needs of **6 to 12 year olds** as being very well met.
- **55 years and older** (27.2%, n=41) had a top box percent above **25%**, indicating that more than 1/4th of respondents scored the needs of 55 years and older as being very well met.
- **0 to 5 year olds** (23.2%, n=35) and **35 to 54 year olds** (22.5%, n=34) both had top box scores above **20%**, indicating that more than 1/5th of respondents scored the needs of **0 to 5 year olds** and **35 to 54 year olds** as being very well met.
- **19 to 34 year olds** (17.9%, n=27) had a top box score above **15%**, indicating that more than 1/7th of respondents scored the needs of **19 to 34 year olds** as being very well met.
- **13 to 18 year olds** (11.3%, n=17) had a top score above **10%**, indicating that more than 1/10th of respondents scored the needs of **18 to 34 year olds** as being very well met.

Table RO7.e. Q12. Needs Being Met – Frequencies – Needs Being Met Very Well (Top Box Percent)

	Needs not being met at all 1	2	3	4	Needs being met very well 5
6 - 12 year olds	2% (3)	2.6% (4)	15.2% (23)	47% (71)	33.1% (50)
55 years and older	6% (9)	12.6% (19)	24.5% (37)	29.8% (45)	27.2% (41)
0 - 5 year olds	5.3% (8)	13.2% (20)	31.1% (47)	27.2% (41)	23.2% (35)
35 - 54 year olds	2% (3)	5.3% (8)	30.5% (46)	39.7% (60)	22.5% (34)
19 - 34 year olds	2% (3)	7.3% (11)	22.5% (34)	50.3% (76)	17.9% (27)
13 - 18 year olds	11.3% (17)	25.8% (39)	33.8% (51)	17.9% (27)	11.3% (17)

Chart RO7.c.



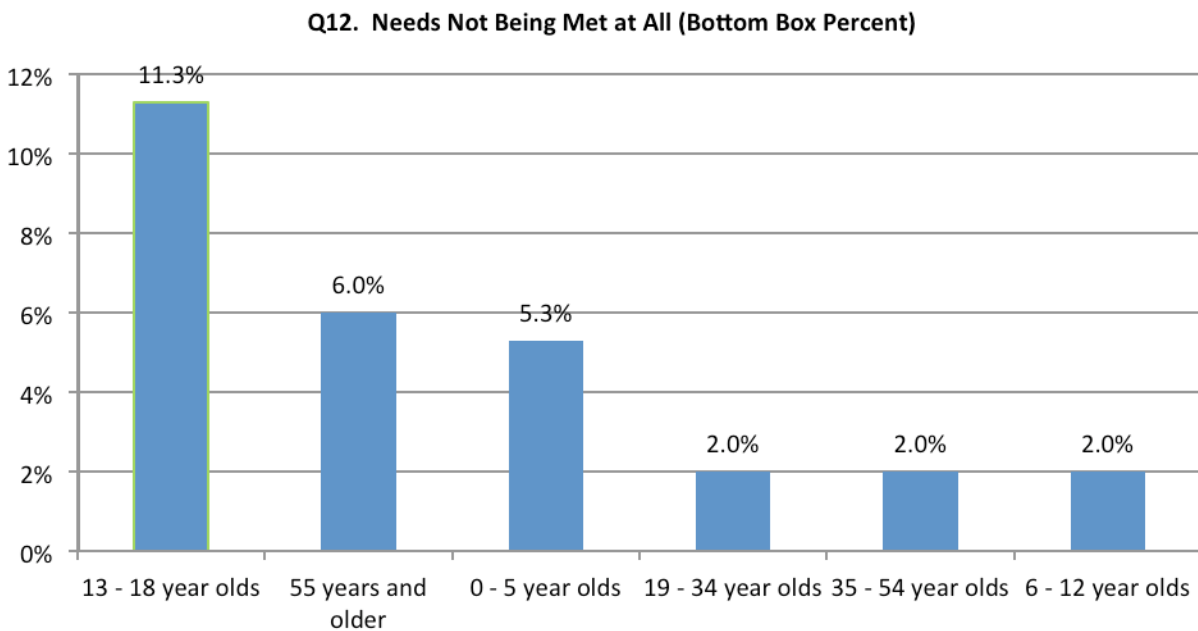
Frequencies and percentages were tallied for all respondents and sorted by the percentage of respondents that answered “Needs not Being Met At All” (Bottom Box Percent) (Table RO7f. and Chart RO7.d).

- **13 to 18 year old** (11.3%, n=17) was the only age segment that had a bottom box percent above **10%**, indicating that more than 1/10th of respondents scored the needs of **13 to 18 year olds** as not being met at all.

Table RO7.f. Q12. Needs Being Met – Frequencies – Q12. Needs Not Being Met at All (Bottom Box Percent)

	Needs being met very well 5	4	3	2	Needs not being met at all 1
13 - 18 year olds	11.3% (17)	17.9% (27)	33.8% (51)	25.8% (39)	11.3% (17)
55 years and older	27.2% (41)	29.8% (45)	24.5% (37)	12.6% (19)	6% (9)
0 - 5 year olds	23.2% (35)	27.2% (41)	31.1% (47)	13.2% (20)	5.3% (8)
19 - 34 year olds	17.9% (27)	50.3% (76)	22.5% (34)	7.3% (11)	2% (3)
35 - 54 year olds	22.5% (34)	39.7% (60)	30.5% (46)	5.3% (8)	2% (3)
6 - 12 year olds	33.1% (50)	47% (71)	15.2% (23)	2.6% (4)	2% (3)

Chart RO7.d.



Cross-tabs – Urban or Rural/Age Needs

Respondents were classified as either **urban or rural** (based on zip code), cross tabulated by **age needs**, and mean scores for urban and rural areas were tested for statistically significant differences using an independent samples t-test (95% and 90%) with H_0 = null/no difference in age based needs between rural and urban areas and H_1 = difference between age based needs between rural and urban obstacles (Table RO7.g and Table RO7.h).

- **6 to 12 year olds** ($p=0.013$) and **35 to 54 year olds** ($p=0.014$) showed significant differences between urban and rural at the 95% level ($p < 0.05 = H_0$ rejected and H_1 accepted).
 - **Urban** respondents ($\bar{x}=4.13$, $n=136$) scored higher than **Rural** respondents ($\bar{x}=3.53$, $n=15$), indicating that the unmet needs of **6 to 12 year olds** are significantly larger in rural areas than urban areas.
 - **Urban** respondents ($\bar{x}=3.83$, $n=136$) scored higher than **Rural** respondents ($\bar{x}=3.30$, $n=15$), indicating that the unmet needs of **35 to 54 year olds** are significantly larger in rural areas than urban areas.

Cross-tabs – Area Code/Age Needs

Respondents were classified by **area code**, cross tabulated by **age needs**, and mean scores were tested against each other for significance (95%) using an independent sample t-test, with H_0 = null/no difference in age needs between the two area codes and H_1 = difference in age needs between the two area codes (Table RO7.i).

- **Kansas City-West (816)** ($n=41$) area code had three significant differences, as compared to other regions, among three of the age ranges ($p < 0.05 = H_0$ rejected and H_1 accepted).
 - **13 to 18 year olds** ($\bar{x}=2.9$, $n=151$) scored significantly higher in **Kansas City-West (816)** ($\bar{x}=3.0$, $n=41$) compared to **St. Louis-East (314)** ($\bar{x}=2.5$, $n=34$).
 - **35 to 54 year olds** ($\bar{x}=3.8$, $n=151$) scored significantly higher in **Kansas City-West (816)** ($\bar{x}=3.9$, $n=41$) compared to **Northwest (660)** ($\bar{x}=3.1$, $n=8$).
 - **55 years and older** ($\bar{x}=3.6$, $n=151$) scored significantly higher in **Kansas City-West (816)** ($\bar{x}=3.9$, $n=41$) compared to **Northeast-Central-Southeast (573)** ($\bar{x}=3.1$, $n=33$).
- **St. Louis-East (314)** ($n=34$) area code had two significant differences, as compared to other regions, among two of the age ranges ($p < 0.05 = H_0$ rejected and H_1 accepted).
 - **35 to 54 year olds** ($\bar{x}=3.8$, $n=151$) scored significantly higher in **St. Louis-East (314)** ($\bar{x}=4.0$, $n=34$) compared to **Northwest (660)** ($\bar{x}=3.1$, $n=8$).
 - **55 years and older** ($\bar{x}=3.6$, $n=151$) scored significantly higher in **St. Louis-East (314)** ($\bar{x}=3.6$, $n=34$) compared to **Northeast-Central-Southeast (573)** ($\bar{x}=3.1$, $n=33$).
- **Northeast-Central-Southeast (573)** ($n=33$) area code had one significant difference among one of the age ranges ($p < 0.05 = H_0$ rejected and H_1 accepted).
 - **13 to 18 year olds** ($\bar{x}=2.9$, $n=151$) scored significantly higher in **Northeast-Central-Southeast (573)** ($\bar{x}=3.1$, $n=33$) compared to **St. Louis-East (314)** ($\bar{x}=2.5$, $n=34$).
- **Southwest (417)** ($n=18$) area code had one significant difference, as compared to other regions, among one of the age ranges ($p < 0.05 = H_0$ rejected and H_1 accepted).
 - **13 to 18 year olds** ($\bar{x}=2.9$, $n=151$) scored significantly higher in **Southwest (417)** ($\bar{x}=3.2$, $n=18$) compared to **St. Louis-East (314)** ($\bar{x}=2.5$, $n=34$).

Respondents were also asked which of the six age groups have the most unmet needs (Table RO7.j and Chart RO7.e) and sorted high to low based on percent (Chart RO7.k).

- **13 to 18 years olds** (48.3%, n=73) had the highest frequency, with **48.3%** of respondents indicating that **13 to 18 year olds** have the most unmet needs.
- **0 to 5 year olds** (18.5%, n=28) and **55 years and older** (18.5%, n=28) tied for the second highest frequency, with **18.5%** of respondents indicating that **0 to 5 year olds** and **55 years and older** have the most unmet needs.
- **6 to 12 year olds** (4.0%, n=6), **19 to 34 year olds** (4.0%, n=6), and **All needs are met** (4.0%, n=6) were all at **4%** (n=6).
- **35 to 54 year olds** (2.6%, n=4) had the fewest mentions of unmet needs out of all the age groups available, at **2.6%**.

Table RO7.j. Q13. Out of the following AGE GROUPS, which one has the MOST unmet needs?

	Frequency	Percent
0 - 5 Year olds	28	18.5%
6 - 12 Year olds	6	4.0%
13 - 18 Year olds	73	48.3%
19 - 34 Year olds	6	4.0%
35 - 54 Year olds	4	2.6%
55 Years and older	28	18.5%
All Needs Are Met	6	4.0%
Total	151	100.0%

Chart RO7.e.

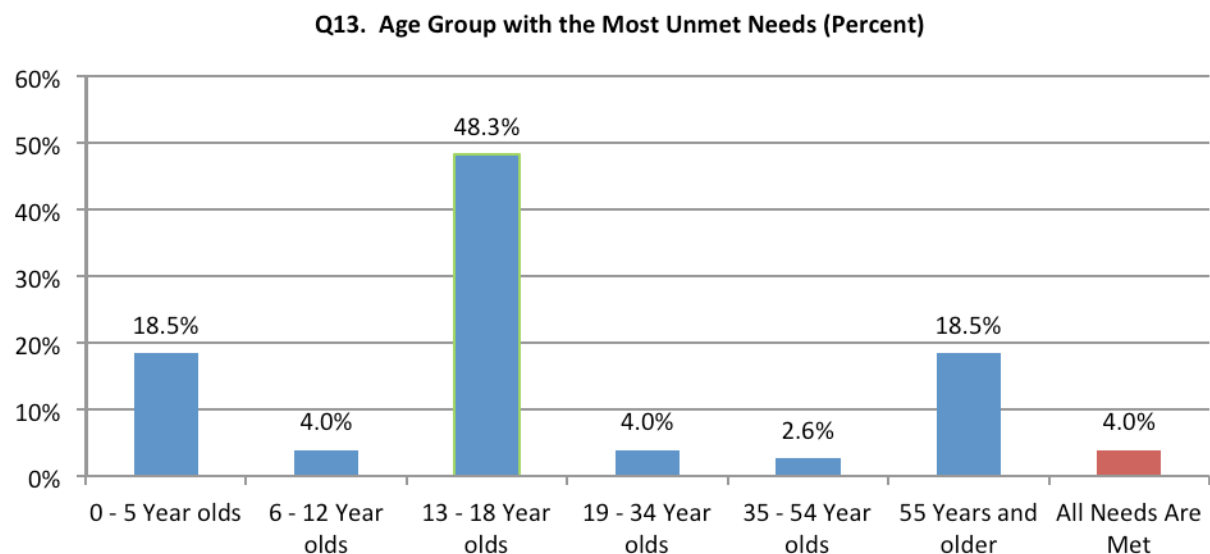
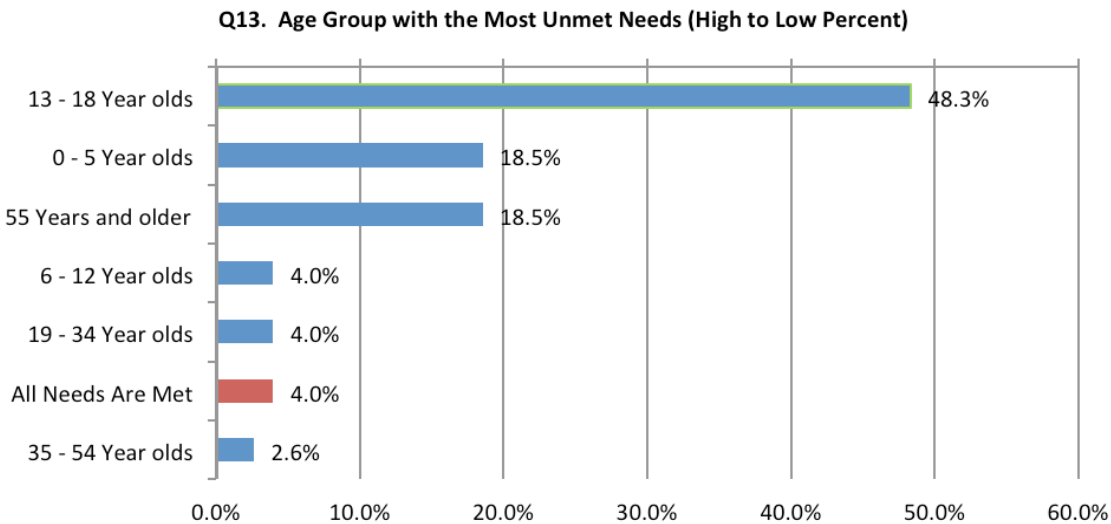


Chart RO7.f.



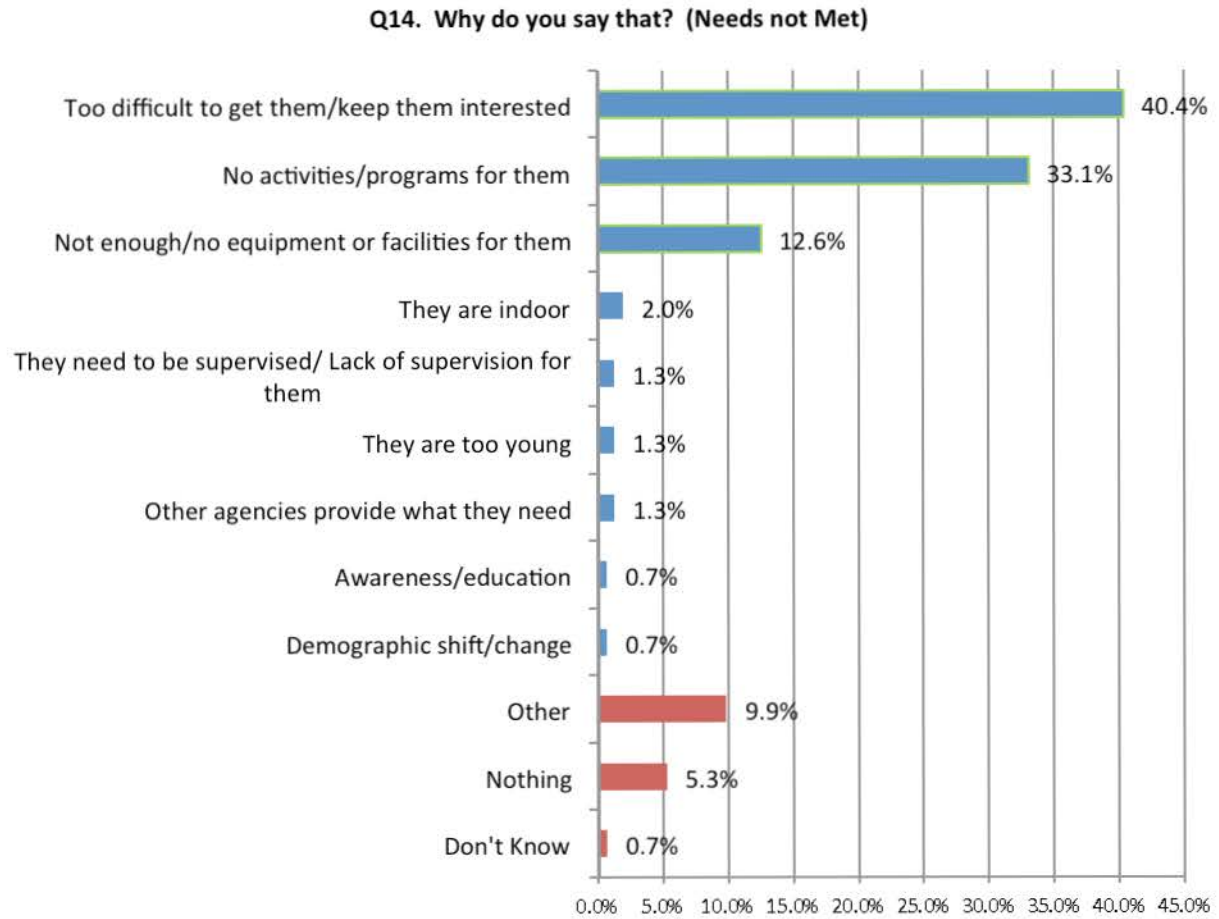
Respondents were asked their reason for choosing a particular age group. Responses were coded, tallied, and sorted from high to low by frequency (Table RO7.k and Chart RO7.g).

- **Too difficult to get them/keep them interested** (40.4%, n=61) was mentioned by more than **40%** of respondents.
- **No activities/programs for them** (33.1%, n=50) was mentioned by more than **33%** of respondents.
- **Not enough/no equipment or facilities for them** (12.60%, n=19) was mentioned by more than **10%** of respondents.

Table RO7.k. Q14 Frequencies – Why do you say that?

Code	Response	Responses		Percent of Cases
		N	Percent	
52	Too difficult to get them/keep them interested	61	37.00%	40.40%
50	No activities/programs for them	50	30.30%	33.10%
53	Not enough/no equipment or facilities for them	19	11.50%	12.60%
55	They are indoor	3	1.80%	2.00%
51	They need to be supervised/ Lack of supervision for them	2	1.20%	1.30%
54	They are too young	2	1.20%	1.30%
56	Other agencies provide what they need	2	1.20%	1.30%
35	Awareness/education	1	0.60%	0.70%
42	Demographic shift/change	1	0.60%	0.70%
99	Other	15	9.10%	9.90%
96	Nothing	8	4.80%	5.30%
98	Don't Know	1	0.60%	0.70%
	Total	165	100.00%	109.30%

Chart R07.g.



8. Research Question 8 (RQ8)

- *Are there any critical, unidentified issues that impact outdoor recreation in Missouri, or other popular facilities or activities?*

Research Objective 8.1 (RO8.1)

- **Determine any other critical/important issues related to outdoor recreation in Missouri.**

Respondents were asked to identify the top two to three critical issues that they see impacting the future of outdoor recreation (open-ended). Responses were coded, tallied, and sorted from high to low by frequency (Table RO8.1a).

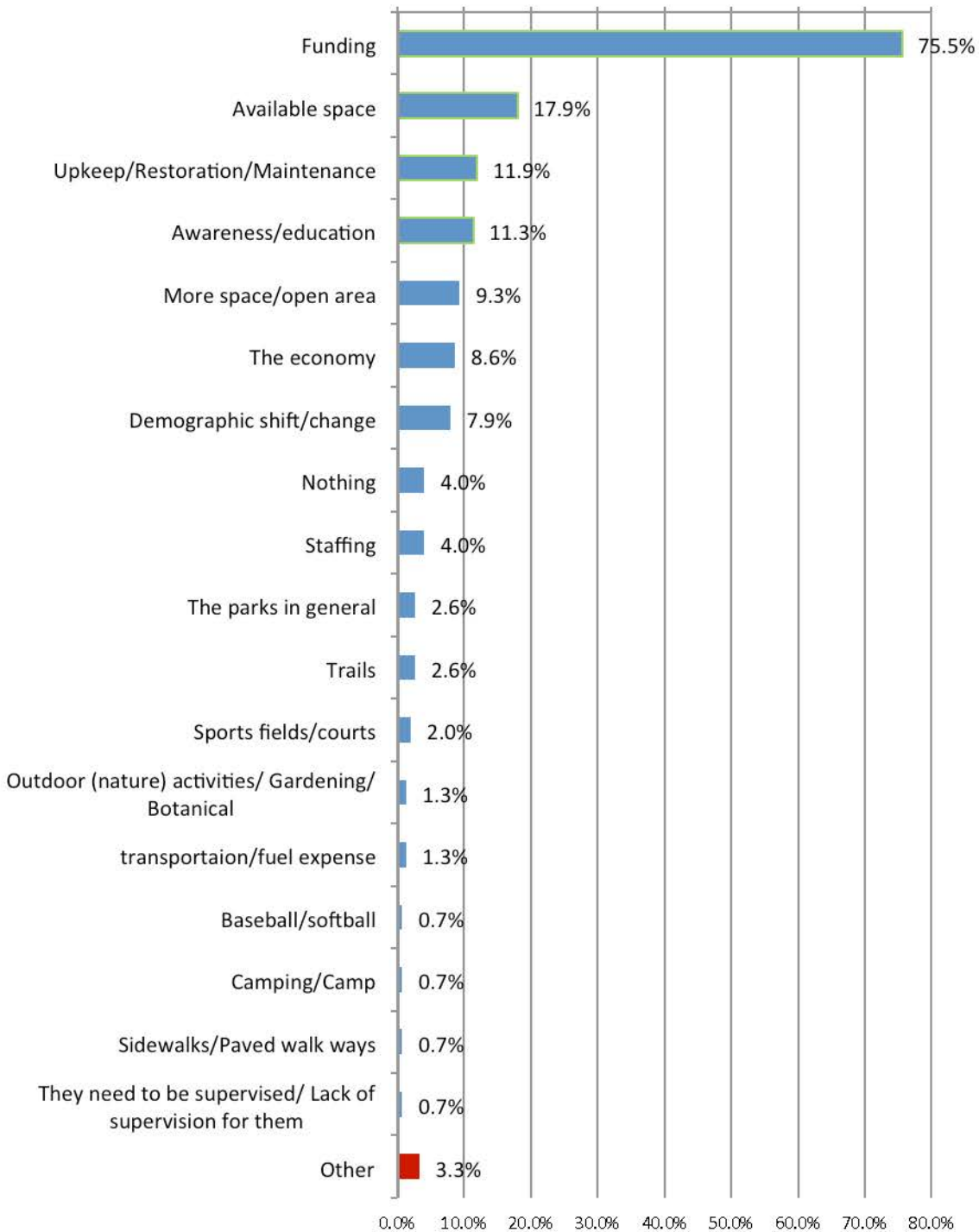
- **Funding** (75.5%, n=114) was mentioned by more than **75%** of respondents.
- **Available space** (17.9%, n=27) was mentioned by more than **15%** of respondents.
- **Upkeep/restoration/maintenance** (11.9%, n=18) and **Awareness/education** (11.3%, n=17) were both mentioned by more than **10%** of respondents.

Table RO8.1a. Q18 Frequencies (open-ended) – Please identify the top two to three critical issues that you see impacting the future of outdoor recreation

Code	Response	Responses		Percent of Cases
		N	Percent	
34	Funding	114	45.40%	75.50%
36	Available space	27	10.80%	17.90%
38	Upkeep/Restoration/Maintenance	18	7.20%	11.90%
35	Awareness/education	17	6.80%	11.30%
23	More space/open area	14	5.60%	9.30%
37	The economy	13	5.20%	8.60%
42	Demographic shift/change	12	4.80%	7.90%
96	Nothing	6	2.40%	4.00%
103	Staffing	6	2.40%	4.00%
19	The parks in general	4	1.60%	2.60%
28	Trails	4	1.60%	2.60%
21	Sports fields/courts	3	1.20%	2.00%
43	Outdoor (nature) activities/ Gardening/ Botanical	2	0.80%	1.30%
104	Transportation/fuel expense	2	0.80%	1.30%
29	Baseball/softball	1	0.40%	0.70%
41	Camping/Camp	1	0.40%	0.70%
49	Sidewalks/Paved walk ways	1	0.40%	0.70%
51	They need to be supervised/ Lack of supervision for them	1	0.40%	0.70%
99	Other	5	2.00%	3.30%
	Total	251	100.00%	166.20%

Chart RO8.1a.

Q18. Identify the top two to three critical issues that you see impacting the future of outdoor recreation.



Recommendations

Based on this study of Missouri outdoor recreation professionals and local communities, SYNERGY/PRI/JPA recommends the following:

- **Focus more resources on:**
 - **Trails**
 - Highest unmet demand
 - Expected to increase the most in popularity
 - Most popular activity among families and adults over the age of 18
 - Focus on improving and existing trails as well as creating new ones
 - Very high need of improvement
 - **Multi-use fields**
 - In high demand
 - Expected to increase a lot in popularity
 - Useful for multiple activities
 - Very popular among 13 to 18 year olds and 19 to 34 year olds
 - Focus on improving and maintaining existing fields as well as creating new ones
 - Very high need of improvement
 - **Playgrounds**
 - In high demand
 - Expected to increase a lot in popularity
 - Second most popular activity for families and the most popular activity for children from zero to 12 years old
 - Focus on maintaining existing playgrounds as well as creating new ones
 - Not as much need of improvement as other types of facilities
 - **Picnic areas and**
 - **Gardens**
 - In high demand
 - Expected to increase in popularity
 - Low need of improvement
 - More urgent need in urban areas
- **Focus on Improving** (lower demand and not increasing as much in popularity but in need of improvement):
 - **Camping sites**
 - Low availability but highest need of improvement
 - Has increased in popularity in Central-East (636) area code but decreased in popularity in the Northeast-Central-Southeast (573) area code
 - **Outdoor basketball courts**
 - **Historic/education sites**
 - **Boating and water sport access sites**
 - **Tennis courts**
 - **Target shooting sites**
 - **Meeting the needs of 13 to 18 year olds**
 - Age group with the **most unmet needs**
 - **Multi-use fields** are popular among this age group

- **Skateboard parks** were mentioned as popular among this age group
 - **Soccer fields** are increasing in popularity and are more in demand than **Baseball/softball fields, Football fields, Outdoor basketball courts, Golf courses, Tennis courts, and Target shooting sites.**
 - **Baseball/softball fields, Football fields, Volleyball courts, and Golf courses** scored lower on need of improvement than the other facility types
- **Public Transportation to facilities**
 - Scored low in adequacy across the state, and less adequate in rural areas
- **Address issues, obstacles and priorities:**
 - **Future funding and funding obstacles**
 - Most critical issue mentioned
 - More urgent in rural areas
 - **High priorities**
 - **Educating the public and officials on the values and benefits of outdoor recreation**
 - Higher priority in rural areas
 - Lower priority in **East-Central (636)** area code
 - **Increasing the amount of money for maintenance and operations**
 - **Large obstacles**
 - **Lack of consistent funding system**
 - Larger obstacle in rural areas
 - **Availability of future park land**
 - Larger obstacle in rural areas
 - **Ignorance/lack of education on benefits/values of outdoor recreation activities**
 - **Low priority/support for recreation**
- **Focus fewer resources on:**
 - **Hunting sites, Golf courses, Volleyball courts, Target shooting sites, Tennis courts, Outdoor basketball courts, and Fishing sites**
 - Scored low on all demand and popularity measures
 - Focus on improving and maintaining existing facilities
 - **Local crime and Safety concerns** did not seem to be an obstacle to improving outdoor recreation

Appendix A - Questionnaire

Introduction

Hello, my name is (INTERVIEWER NAME) and I'm with Pragmatic Research/Synergy Group, Inc. calling on behalf of Missouri State Parks. Missouri is in the process of updating its Statewide Comprehensive Outdoor Recreation Plan (SCORP). In order to plan and improve outdoor recreation in Missouri, we're conducting a brief, 10 - 15 min telephone survey among Outdoor Recreational Professionals in Missouri. All participation is appreciated. The questionnaire should only take about 15 minutes and your answers will be combined and submitted as a whole and therefore your individual identity and any answers you give will remain anonymous.

Is there a director level, superintendent, supervisor, planner, or professor available to go through the questionnaire?

- ☐ Yes (ASK TO SPEAK TO THAT PERSON)/Speaking (IF NOT A GOOD TIME THEN SCHEDULE A CALLBACK)
- ☐ No (ASK ABOUT AVAILABILITY AND SCHEDULE CALLBACK)

Screener

S1. What is your zip code? Zip Code: _____

S2. What is your current position and/or association with the Missouri Parks and Recreation Association? (DO NOT READ LIST. SELECT ONE)

- ☐ Executive Director
- ☐ Superintendent
- ☐ Professor
- ☐ Director
- ☐ Supervisor
- ☐ Assistant Professor
- ☐ Assistant Director
- ☐ Senior Planner
- ☐ Other*
- ☐ Deputy Director
- ☐ Planner

*IF OTHER ASK FOR SOMEONE WITH A TITLE ON THE LIST AND RE-INTRODUCE. ARRANGE CALLBACK TIME IF UNAVAILABLE.

Questionnaire

LIST OF FACILITY TYPES (Q1LIST)

Baseball / softball fields	Golf Courses	Outdoor swimming pools
Outdoor basketball courts	Historic / education sites	Tennis courts
Boating and water sport access sites	Hunting sites	Trails
Camping sites	Multi-use fields	Volleyball courts
Fishing sites	Picnic areas	Target shooting sites
Football fields	Playgrounds	Nature Parks/Areas
Gardens	Soccer fields	

FOR EACH FACILITY TYPE: ASK Q1 THROUGH Q4 THEN MOVE ON THE NEXT FACILITY TYPE

Thinking about the outdoor recreation facilities that your community offers...

Q1. Using a 1 to 5 scale, where 1 is **no need of improvement** and 5 is **extreme need of improvement**, how would you rate the **need of improvement** for your local [INSERT FACILITY TYPE FROM Q1LIST]? (SELECT ONE. SELECT N/A IF FACILITIES ARE NOT OFFERED)

Facility Type	No need of improvement			Extreme need of improvement		
Baseball / softball fields	1	2	3	4	5	N/A
Outdoor basketball courts	1	2	3	4	5	N/A
Boating and water sports access sites	1	2	3	4	5	N/A
Camping sites	1	2	3	4	5	N/A
Fishing sites	1	2	3	4	5	N/A
Football fields	1	2	3	4	5	N/A
Gardens	1	2	3	4	5	N/A
Golf courses	1	2	3	4	5	N/A
Historic / education sites	1	2	3	4	5	N/A
Hunting sites	1	2	3	4	5	N/A
Multi-use fields	1	2	3	4	5	N/A
Picnic areas	1	2	3	4	5	N/A
Playgrounds	1	2	3	4	5	N/A
Soccer fields	1	2	3	4	5	N/A
Outdoor swimming pools	1	2	3	4	5	N/A
Tennis courts	1	2	3	4	5	N/A
Trails	1	2	3	4	5	N/A
Volleyball courts	1	2	3	4	5	N/A
Target shooting sites	1	2	3	4	5	N/A
Nature parks/areas	1	2	3	4	5	N/A

Q2. Would you say that local demand for [INSERT FACILITY TYPE] is much lower, lower, slightly lower, about right, slightly higher, higher, or much higher than what is currently provided, if at all? (SELECT ONE)

Facility Type	Much lower	Lower	Slightly lower	About right	Slightly higher	Higher	Much higher
Baseball / softball fields	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Outdoor basketball courts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Boating and water sports access sites	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Camping sites	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fishing sites	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Football fields	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gardens	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Golf courses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Historic / education sites	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hunting sites	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Multi-use fields	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Picnic areas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Playgrounds	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Soccer fields	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Outdoor swimming pools	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tennis courts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Trails	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Volleyball courts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Target shooting sites	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nature parks/areas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q3. Has the popularity of [INSERT FACILITY TYPE] decreased, increased, or stayed the same **over the last five years**? Would you say it has decreased a lot, decreased, decreased a little, no change, increased a little, increased, or increased a lot?

Facility Type	Decreased a lot	Decreased	Decreased a little	No change	Increased a little	Increased	Increased a lot
Baseball / softball fields	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Outdoor basketball Courts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Boating and water sports access sites	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Camping sites	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fishing sites	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Football fields	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gardens	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Golf courses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Historic / education sites	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hunting sites	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Multi-use fields	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Picnic areas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Playgrounds	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Soccer fields	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Outdoor swimming pools	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tennis courts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Trails	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Volleyball courts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Target shooting sites	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nature parks/areas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q4. Do you see the popularity of [INSERT FACILITY TYPE] decreasing, increasing, or staying the same **in the next five years**? Would you say it is decreasing a lot, decreasing, decreasing a little, not changing, increasing a little, increasing, or increasing a lot?

Facility Type	Decrease a lot	Decrease	Decrease a little	No change	Increase a little	Increase	Increase a lot
Baseball / softball fields	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Outdoor basketball Courts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Boating and water sports access sites	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Camping sites	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fishing sites	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Football fields	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gardens	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Golf courses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Historic / education sites	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hunting sites	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Multi-use fields	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Picnic areas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Playgrounds	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Soccer fields	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Outdoor swimming pools	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tennis courts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Trails	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Volleyball courts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Target shooting sites	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nature parks/areas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q5. Are there any other outdoor recreation facility types in your community that are in need of improvement? (RECORD VERBATIM. PROBE)

Q6. Are there any other outdoor recreation facilities/activities in your community that you traditionally provide that you have seen decline over the past 5 years? Why? (RECORD VERBATIM. PROBE)

Q7. Are there any other outdoor recreation facilities/activities that you predict will gain in popularity over the next five years? Why? (RECORD VERBATIM. PROBE)

Q8. Using a 1 to 5 scale, where 1 is **not at all adequate** and 5 is **very adequate**, how would you rate the adequacy of the following park and recreation related support components in your community? (READ LIST. SELECT ONE)

Facility Support Components	Not at all adequate				Very adequate
Public restrooms	1	2	3	4	5
Parking	1	2	3	4	5
Handicap accessibility	1	2	3	4	5
Drinking water	1	2	3	4	5
Public Transportation to facilities	1	2	3	4	5

Q9. Are there any other support related components that you don't feel are adequate in your community? (RECORD VERBATIM. PROBE)

Q10. Using a 1 to 5 scale, where 1 is **not a priority at all** and 5 is **high priority**, how would rate the priority of the following when it comes to improving outdoor recreation in your community? (READ LIST. SELECT ONE)

Area of Improvement	Not a priority at all			High priority	
Increasing overall funding for outdoor recreation	1	2	3	4	5
Increasing the amount of money for maintenance and operations	1	2	3	4	5
Educating the public and officials on the values and benefits of outdoor recreation	1	2	3	4	5
Improving communication and collaboration among partners	1	2	3	4	5
Expanding, updating, and maintaining existing outdoor recreation facilities	1	2	3	4	5
Increasing conservation / preservation efforts	1	2	3	4	5
Increasing, improving, and diversifying marketing and public relations	1	2	3	4	5

Q11. Using a 1 to 5 scale where 1 is **not an obstacle at all** and 5 is **very large obstacle**, how would you rate the following obstacles at preventing improvements in outdoor recreation from being made in your local community? (READ LIST. SELECT ONE)

Potential Obstacle	Not an obstacle at all			Very large obstacle	
Low priority / support for recreation	1	2	3	4	5
Lack of consistent funding system	1	2	3	4	5
Ignorance / lack of education on benefits / value of outdoor recreation	1	2	3	4	5
Inadequate planning	1	2	3	4	5
Lack of flexibility / fear of trying something new	1	2	3	4	5
Increasing demand / use	1	2	3	4	5

Demographic shifts (specifically related to ethnic / cultural diversity)	1	2	3	4	5
Participating in outdoor recreation is unsafe due to local crime	1	2	3	4	5
Outdoor recreation creates too many liability issues	1	2	3	4	5
Availability of future park land	1	2	3	4	5

Q12. Using a 1 to 5 scale, where 1 is **needs are not being met at all** and 5 is **needs are being met very well**, how would you rate your ability to meet the needs of the following age groups? (READ LIST. SELECT ONE)

Age groups	Needs are not being met at all			Needs are being met very well	
0 – 5 year olds	1	2	3	4	5
6 – 12 year old	1	2	3	4	5
13 – 18 year olds	1	2	3	4	5
19 – 34 year olds	1	2	3	4	5
35 – 54 year olds	1	2	3	4	5
55 years and older	1	2	3	4	5

Q13. Out of the following age groups, which one has the most unmet needs? (READ LIST. SELECT ONE)

- ☐ 0 – 5 year olds
 ☐ 19 – 34 year olds
- ☐ 6 – 12 year olds
 ☐ 35 – 54 year olds
- ☐ 13 – 18 year olds
 ☐ 55 years and older
- ☐ All needs are met (DO NOT READ)

Q14. Why do you say that? (RECORD VERBATIM. PROBE)

Q15. What are the two most popular outdoor recreation resources that you supply for families in your community? (RECORD VERBATIM. PROBE)

Q16. What are the two most popular outdoor recreation activities you provide for the following age categories? (RECORD VERBATIM)

Age Categories	Activity 1	Activity 2
Pre-school (0 – 5 years old)		
Children (6 – 12 years old)		
Adolescents (13 – 18 years old)		
Young Adults (19 – 34 years old)		
Adults (35 – 54 years old)		
Seniors (55 years or older)		

Q17. Are there any outdoor recreation facilities, trails, or programs that are not provided in your area but should be? (RECORD VERBATIM. PROBE)

Q18. Please identify the top 2-3 critical issues that you see impacting the future of outdoor recreation in your community. (RECORD VERBATIM. PROBE)

That was the last question. Thank you for your time.

(THANK AND TERMINATE)